

# Manufacturers Record

EXPONENT OF AMERICA

Devoted to the Upbuilding of the Nation Through the Development  
of the South and Southwest as the Nation's Greatest Material Asset

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## PRICES AND PROSPERITY RISE TOGETHER.

JUDGE GARY is right. The return of prosperity can be accomplished only through the medium of rising prices. Steel producers who have squandered their accumulated surpluses by insanely endeavoring to sell their products at below cost of production at last have sensed the futility of the practice. It will be the principle and policy of the Steel Corporation, says Judge Gary, "to follow increases in the selling prices of others up to the point which we believe to be fair and reasonable and just to the purchasers, and not any further."

During the saturnalia of price-slashing, when a certain madness seized the country and the strange theory was adopted that only through general insolvency could solvency finally be attained, Judge Gary maintained throughout a policy of resistance to so quixotic a theory. He did not give in until an economic shambles had encompassed the whole structure of business and he had been starved into surrender.

The suicidal mania is passing. "The business men of the country have an opportunity to bring about honest, reasonable and fair business prosperity," says Judge Gary. A condition precedent is that the public authorities enforce the laws and secure to every individual the right to work in accordance with his opportunities and desires. Also, the laborer is worthy of his hire and the producer, whether in field or mine or factory, is entitled to his fair profit.

There can be no prosperity in continuous deficits and the dissipation of the resources of private business. Producers, as well as governments, must have balanced budgets. It is remarkable that the mere statement of a fundamental truth, which formerly every school boy knew, when made at this time by Judge Gary, creates something of a sensation, but it only goes to show how deeply engulfed in economic error the country has been for the past two years.

## LINCOLN AND CALHOUN QUOTED ON CONTRACTION OF CURRENCY.

American Cotton Association.

St. Matthews, S. C., March 21.

Editor Manufacturers Record:

On page 417 of a History of the Farmers Alliance by W. Scott Morgan, published in 1889, he quotes Lincoln as follows:

"If a government contracted a debt with a certain amount of money in circulation, and then contracted the volume of money before the debt was paid, it is the most heinous crime a government could commit against the people."

From the speeches of John C. Calhoun in the Senate, he quotes:

"Place the money power in the hands of a combination of a few individuals, and they by expanding or contracting the currency may raise or sink prices at pleasure; and by purchasing when at the greatest depression and selling at the greatest elevation may command the whole property and industry of the community and control its fiscal operations."

The Federal Reserve System concentrates almost unlimited power in seven men. The purpose of this power, of course, was to be used for the best interests of the people. However, it has been used just the opposite of the purpose for which it was intended. Never has the world seen a machine so well adapted to accomplish the ruin of a people by its mal-administration. It is hardly conceivable that anyone connected even remotely with the formation of the Federal Reserve System could truthfully state that he realized the Federal Reserve System would have a greater opportunity to bring to the people of America and the world at large the tremendous benefits which were knocking at our door prior to the enforcement of this policy of artificial deflation, or more correctly, this policy of wreck and ruin.

At no time in our history not only from the time of Lincoln but from the time of George Washington, since the formation of this great Republic, have we been presented with a greater way of prosperity, a greater opportunity for securing permanent benefits to agriculture, commerce and civilization nation-wide and world-wide, than was almost forced upon us prior to the enforcement of this policy of wreck and ruin.

And had the Federal Reserve System functioned for the purpose for which it was intended, today we would be in the midst of prosperity; we would have a contented and prosperous agriculture, intense commercial activity, and the people of America and the world would have received great benefits. Of course, we would have eventually had deflation in prices. However, it would have come upon the law of supply and demand, and never to pre-war levels as a perpendicular drop. Had the Federal Reserve System functioned for the purpose for which it was created, it would have been recorded in the permanent records of history as one of the greatest benefactors of civilization. In fact, I firmly believe that to it would have been given the honor, and justly so, of being one of the greatest benefactors of mankind, one that con-

tributed materially to the change of false customs and the means of securing for the people commercial freedom and releasing them from the domination, control and enslavement of the great money powers.

However, history repeated itself. The money changers, the international bankers, got control of the temple, and we did not have a Christ to drive them out. As a result civilization is paying a fearful penalty. The spirits of Washington, Lincoln, Jackson and Calhoun, were they permitted to communicate with mortals, would condemn this policy in such language and terms that the money changers would flee from the temple as they fled before the scourge of Christ. In all divine history I find but one instance where the Master showed anger, and that was when he found the money changers in charge of the temple, profiteering in His Father's house upon the adversity of His Father's people.

A glance at the condition of agriculture today will bring to the realization of one endowed even with a small degree of common sense the fact that the money changers are in absolute control of the Great Temple, Agriculture. How long will this be permitted before history will repeat itself, as was done in the case of the money changers in the temple, or at other stages during the slow progress of civilization? Will we have a repetition of the history made by Andrew Jackson?

The Federal Reserve Banking System, a great piece of financial machinery, was created for the purpose of serving the people. At least this was the intention of those who were sincerely interested in upbuilding our nation and civilization. It was never intended to be the master of the people; never intended to operate in the manner in which it has functioned since the spring of 1920.

J. S. WANNAMAKER,  
President.

## ONE FIRM ADVANCES WAGES AS INDICATIVE OF BUSINESS IMPROVEMENT.

THE announcement made a few weeks ago by the Johns-Manville Company of New York, with branch offices and factories in many other places, that the board of directors had decided to restore to the employees of the company the reduction made in salaries and wages last fall, is one of the most suggestive items of news which has come to the front for many a day.

In one sense it is more clearly indicative of returning prosperity than even the advance in some agricultural products. In a letter to the MANUFACTURERS RECORD replying to an inquiry on the subject the company writes:

"The board of directors felt that this increase would not result in increased costs for our materials, but that it would on the contrary result in a wider distribution of our materials. \* \* \* We believe that by stimulating our own people so that they will effect a wider distribution of the products, which helps in cutting costs, we will be helping ourselves by helping all industry."

This company has taken the ground that in its operations the time has come to restore wages. Wherever a restoration of wages is feasible it should be done. As yet a very large proportion of the business interests of the country is in no position to restore wages, but as one industry after another reaches a point in the coming months or the coming years where wages can be brought back to where they were prior to some of the recent reductions, it will be a blessing to the country for this to be done.

The cry against high wages is a false one. In some cases wages were too high, and in some cases they are still too high; notably in railroad work; but the difficulty in railroad work is largely not so much in our opinion the question of actual wages as the question of the domination by governmental agencies of the hours of labor and the conditions under which men work.

Low wages generally mean high cost. One of the greatest

handicaps which the South has endured has been low wages, due to the custom which grew up after the war out of slavery days when cotton had been raised by slave labor, and when the world thought that cotton should still sell on the basis of slave labor production. These low wages have driven out of the South thousands and tens of thousands of its very best men.

For many years Edward Atkinson, the political economist and statistician of Massachusetts, never lost an opportunity to warn the South as well as all other sections that low wages meant high cost of production, and that in the end low wages were always a curse rather than a blessing.

Years before Ford suggested the idea that no man in his employ should receive less than \$5 a day, D. A. Tompkins of Charlotte, probably in many respects the ablest exponent of economics which the South has produced in the last half century, said to the writer that he hoped to see the time come when no man would receive less than \$5 for a day's work; and he pointed out the unspeakable blessings which would come to this country under such a rate of wages which gave to the laborer on the farm and in the factory a living wage for his work. It would mean a higher civilization, larger prosperity for everybody, better educational facilities, better roads, better schools, and better moral and physical conditions of life.

The theory which Tompkins so strongly advanced in discussing this subject 20 or 25 years ago with the writer would have claimed much of his thought and activity in the succeeding years if death had not called him away from the superb work that he was doing.

Whenever we begin to see, even though it be but here and there, an advance in wages such as that made by the Johns-Manville Company, we can accept as a certainty that there is a return of prosperity; and when in connection with this is taken the advance in some raw materials, in agricultural products and in the stock market, we may rest assured that the tide has turned and that the "inflation in cotton" which bankers so enthusiastically praised when cotton advanced early last fall, is beginning to have its effect upon other interests. And now the recent advance in wheat is receiving equal praise from bankers.

## A DIGEST OF THE RESOURCES AND OPPORTUNITIES OF THE SOUTH.

THE reception which is being given the Blue Book of Southern Progress is a matter of the utmost gratification to the publishers. The production of the book represents months of work and, even to those familiar with what the South has done in the past and the resources of this territory, the figures as assembled present a remarkable study of the opportunities for future growth.

The following letter has been received from a prominent Birmingham investment company:

Jemison and Co.,  
Investment Bankers.  
Birmingham, Ala., March 22.

Editor Manufacturers Record:

Replying to your letter of the 17th, referring to the 'Blue Book of Southern Progress' in which our advertisement appears on page 105, please permit us to congratulate you on this most excellent and progressive digest of resources and opportunities of the South. You have indeed rendered the South a valuable service in compiling this comprehensive booklet and at the same time reflected credit on the facilities of the MANUFACTURERS RECORD for presenting facts in a most thorough and clever manner.

ROBERT JEMISON, JR.,  
President.

No one is useless in this world who lightens the burden of it to anyone else.—Dickens.

# The Railroad Freight and Labor Question From Different Angles.

Number 6.

## Coordination or Combination of Railroad, Water and Motor Truck Interests Should Never Be Permitted.

THE development of water transportation from Southern ports to the Pacific Coast and other parts of the world, and the full utilization of our vast water potentialities, are among the supreme duties of this country to the welfare of its people. The cheapness with which Southern products can be shipped by water when the boats are not controlled by railroad lines, indicates the almost limitless possibilities of the development of water transportation for enlarging the prosperity of the country.

Some years ago a man who probably had had about as much to do as any other living man with the development of iron ore transportation on the Lakes, made a study of the coast line of the Southern states and after doing so said to the MANUFACTURERS RECORD that the South had not learned its A B C's in the possibilities of water transportation. He pointed out what had been accomplished in the truly wonderful achievements on the Lakes which had resulted in the enormous growth of Lake ports and of the iron and steel industry of the United States. And then he contrasted the freight rates on the Lakes with the freight rates along the Atlantic Coast, and the difference was so great that he was fully justified in his claim that the South had not begun to learn of its water transportation possibilities, and he added that perhaps this was due to the fact that many of its steamer lines and its wharves were controlled by railroad influences.

Nature gave to the South this wonderful coast line, a highway for vessels of all kinds, and if properly utilized this coast line and its rivers would bring about a lowering of freights and an increase of prosperity far beyond anything that the South has yet known.

Too many of the steamship lines connecting Northern and Southern ports are controlled by railroad influences. The independent steamship line runs the risk of finding its operations hampered by its inability to secure adequate wharfage facilities or adequate connection with railroads for securing a fair share of traffic. Unless this system is changed the time may come when the next fight will be one to prevent the railroads from having any control whatever over steamship lines along the Atlantic Coast, or in any other of the waters of the country. On the other hand, it has even been suggested of late that there should be a co-ordination of railroad, water and motor truck transportation. There are possibilities of evil in this which should be watched. Some of the great financial interests of the East largely identified with railroads are also interested in the production of motor trucks, and in time, no doubt, an effort will be made to bring about some kind of combination or co-ordination of all transportation interests on the plea that this would be for the best interests of the country. Let the country beware of such a proposition whenever and wherever it is broached. We must build highways adequate to meet the growth of the motor truck business and the motor truck must be encouraged, because it will not be possible in the next ten or twenty years for the railroads to be rebuilt to such an extent as to take care of the traffic which will be available when business once more revives.

Water transportation can be made a great help in meeting this issue. Motor truck transportation is simpler and more easily developed, because the independent truck, like the independent ship or steamer, can go wherever business is offered, provided there is an adequate highway. In building

highways the people of the country are building for themselves a safeguard for the future.

The railroads swept the stage coach business out of existence. Modern methods of transportation may not drive the railroads out, but the capital invested in railroads is no more sacrosanct than was the capital invested in stage coaches; and the capital invested in the steamer or in the motor truck is entitled to just as much safeguarding as is the capital in railroads.

There is room enough for all. The power of expansion of our trade and commerce is beyond any possible facilities which can be provided in the next ten or fifteen years. One banker has recently estimated that within the next fifteen or twenty years it will be necessary to spend \$25,000,000,000 on our railroads in order to enable them to take care of traffic that will then be available. We think this is true. If the \$20,000,000,000 now invested in railroads could be doubled and \$20,000,000,000 spent in expansion of facilities and extension of roads within the next fifteen years, the traffic of the country by that time would still be pressing hard upon railroad facilities.

That this amount of money can be found for railroad expansion is out of the question. Great as will be the expansion of railroad facilities by new money, we must at the same time encourage to the utmost extent the development of highway transportation and the fullest utilization of all of our heaven given water routes, whose development should be one of the first duties of the Government seeking the welfare of the public.

But do not let any move ever be made in this country to coordinate, or combine the three distinct methods of transportation—railroads, motor trucks and water. Each has its place. A combination would be almost criminal against the welfare of the country.

There are many cases in which railroads could wisely use motor trucks to assemble freight to central points but nothing should ever be done to curb independent motor truck operations.

## A Suggested Plan for Bringing About a Reduction in Freight Rates—Increase in Car Carrying Capacity a Vital Factor.

Carbo Steel Products Company.

Chicago, March 24.

Editor Manufacturers Record:

As manufacturers of steel decking and lading our experience has given us an insight into the tremendous savings that can be effected by the use of better lading, decking, etc.

Mr. Markham, in a statement to the public, last fall, said: First. That the present scale of rates must obtain until traffic has been stabilized and costs reduced to the point where efficient operation will permit rate reductions without endangering further the financial status of the roads.

Second. The railroads do not believe in the equity of all present rates, and they have taken the leadership in making readjustments to meet changing conditions.

Third. The railroads also are interested in decreasing the total cost of transportation to the public, and reductions will be made when the situation is established. The railroads, however, urgently plead that reduction be not ill-timed and be not based upon false reasoning.

Fourth. Any plan of railway rate-making which ignores net railway operating income is fallacious and, if followed, will inevitably result in disaster not only to the railroads,



but also the public, for after all the public is dependent upon a going railway transportation plant.

Considerable demand is now being made on the United States railroads to reduce their freight rates. A plan by which the railroads can, however, reduce their freight rates, at the same time retain not only the same earning power as at present, but increase their earning power, is the following, which has been worked out and put into practice, and there is nothing that stands in the way except for the management of the railroads to put the rates into effect for the commodities which can be benefited and expected to use this manner of shipment.

The idea is based on increasing the use of the unused cubical and weight capacity of the railroads' present car equipment. As is known, there is no incentive, today, for anyone to utilize this extra cubical and weight capacity. The chasing of the dollar is so strongly implanted in the American mind that no railroad president can possibly hope to have his cars loaded to capacity under the present system of rate making. During the war some progress was made owing to a supposed patriotic fervor to load cars to fuller capacity, which meant helping the boys at the front. Most of this heavier loading was directly traceable, however, to the desire of shippers to have freight cars, or the impossibility of their being able to get cars without the promise that they would load them to capacity.

To load many commodities heavier in freight cars requires either the investment on the part of the railroads, or the investment on the part of the shippers in some kind of lading or decking to permit of the heavier loading.

The Western Weighing and Inspection Bureau's experience shows that there are at present some commodities which are actually being loaded heavier than is advisable as many of these commodities are creating excessive claims against the railroad by their present methods of shipment.

This special lading which would be necessary to bring about heavier loading would have a further advantage in that the loading of the cars both on the car floor and on the decking would be done in a more secure and less congested manner—one which would tend to decrease the amount of claims. The tendency of better loading in the shipment of one product naturally influences the tendency of better loading in the shipment of another, and the consequence would be by adopting this method, that transportation companies would eventually have fewer claims.

The solution which we have to offer is as follows:

We propose that railroads offer a reduced freight rate for each product by setting this rate on the basis of requiring a higher carload minimum weight than the present carload rates. In other words, to have two carload minimums—one to be the carload minimum that is now existent—the other to be the carload minimum that can be loaded into a car, either by additional weight of the commodity without lading, or by adding some form of decking or framing where it is necessary to carry the extra weight of the commodity in question safely to destination. The safe carrying capacity of cars to be regarded.

The method proposed, to create the fuller use of cubical and weight car capacity, would enable the United States railroads:

First. To make more money from their present equipment.

Second. To reduce present freight rates and thus become a practical form of turning business upwardly, without injuring the railroads' or the shippers' cost of living.

Third. To help decrease claims against the railroads.

Fourth. To help farmers, fruit growers, manufacturers, etc., get equipment when they need it under exceptionally prosperous business conditions as well as under poor business conditions.

Fifth. To help reduce the man-power required at present to move a given tonnage.

Sixth. To help reduce the fuel used by railroads thus bringing about a national economy, also saving cars—for

a large percentage of the present railroad equipment is used to haul material for its own use or consumption.

Seventh. To reduce investment in railroad sidings, main trackage, etc., as well as investment in equipment. For doubling the quantity of goods shipped, means practically halving the cost of these various items, and the operation of this system would gradually bring upon the railroads further advantages as well as reduce all costs, for we predict the time will come when a box-car will not be hauled clear across the United States, loaded with 40,000 pounds of steel with a large amount of cubical capacity above it open for carrying some lighter commodity.

Special cars are now used for a number of products, such as livestock, and frequently these cars are not to be had. It should, therefore, be the tendency or desire of the railroads to obtain a standardized national freight car, which car should also include a sufficient size door to permit of loading the commodities which are now shipped by the American public. It is a crime to see the number of cars now unfit for the loading of furniture, automobiles, trucks, tractors, etc. This is because doors are not large enough and cars not high enough.

Shippers, however, will not load in this manner, unless sufficient inducement or incentive is made by the railroads to offset the cost shippers have to go to, to equip themselves with lading.

In setting this reduction in freight rates, the railroads must bear in mind that they will have a financial return from the handling of the lading back to the original shippers, which gives an increased income, and also that they are handling 50 per cent to double increase in tonnage capacity with practically the same cost. This reduction, based on present carload rates, may run as high as 33½ per cent, and will make the railroads an excellent increased earning, thus giving these shippers the benefit of a freight reduction of 20 to 25 per cent, as it is estimated that the cost of dunnage will be the difference, and this cost of dunnage must be borne by the shipper.

Standardized, interchangeable dunnage for a number of products will possibly be the outcome of such a method of handling shipments wherever it seems practical to do this,—for the shipment of many of the products which now move in light weight for bulk, such as fruits, some vegetables, watermelons, the same style of decking or framing can be used, and the now excessive periodical demand for refrigerator cars will partially be eliminated. For many commodities such as the shipment of barrelled goods, oils, greases; flour, etc.; such as automobiles, trucks, tractors, agricultural machinery, etc., the individual companies will equip themselves with their own dunnage, if they are given an incentive. Returnable containers will become popular.

When it is considered that shippers, such as the Ford Motor Co. on some individual products, or parts of their auto alone, would save from fifty to a hundred cars per day it is readily seen what the general use of this new form of lading and method of rate making will mean to the railroads and the American public.

The railroads are now considering this matter from every angle, and it is to be hoped that some progressive step along the lines indicated above will be the outcome of the above suggestions.

C. L. Michod, Manager.

## WHAT THE BLUE BOOK OF SOUTHERN PROGRESS DOES NOT CONTAIN.

THE Tyler Grocery Company, wholesale grocers of Birmingham, Ala., in a letter to the MANUFACTURERS RECORD enclosing their check for renewal of subscription, add:

"We would like to have the Blue Book of Southern Progress provided you do not give any space to knocking the Federal Reserve System."

It would hardly seem necessary for this question to be



raised, for the Blue Book of Southern Progress is designed to show what the South has accomplished, what its resources are, and what its future will be; and, therefore, does not of course in any way whatever discuss questions pertaining to financial or economic problems of the hour. It would be as much out of place in such a publication to discuss the Federal Reserve System as to discuss the freight rate question, pro or con.

The Tyler Grocery Company, can therefore feel entirely safe that nothing in the Blue Book of Southern Progress refers to the Federal Reserve System, and if any one else has been disturbed on that point they can have their minds relieved.

In the meantime we would like to ask the Tyler Grocery Company whether they thoroughly approve of the management of a banking system which started, presumably for the benefit of the public and not with the idea of making profit out of the public, with a capital of \$36,000,000, increased gradually by the addition of new banks and other means to \$103,000,000, and which in a brief seven year period and nearly all of it during the last three years, after paying regular dividends and \$125,000,000 franchise tax to the Government, has accumulated a surplus of \$215,000,000. Here is \$375,000,000 net profits after extravagant expenditures for operation, most of it made within the last three years, and on a capital which gradually rose from \$36,000,000 in 1915 to \$103,000,000 at present.

Is any system which produces such enormous profits wisely managed for the good of the country? The Federal Reserve Banks claim to be private institutions and that the public has nothing to do with their earnings.

But in answering their question, we can assure the Tyler Grocery Company that they can read the Blue Book of Southern Progress without having their feelings offended by anything in it on the management of the Federal Reserve System, and they can accept our offer of fifty cents a copy for the Blue Book and if they feel they didn't get their money's worth, we will return the fifty cents and still let them keep the Blue Book. Can anything be fairer?

### MARKETING CORN.

Corn is still a problem with the farmers of the West. The surplus is large and exchange value for other commodities small. With reason, therefore, farmers are considering a reduction in acreage. But a better plan would be to make a market through the meat hog. The gross return from corn in the State of Nebraska last season averaged \$7.56 an acre. Out of this the farmer has to pay rent, interest, labor and other costs of production. Meanwhile the miners, whose coal he cannot afford to buy, are asking for more pay in order to increase the price of fuel. Naturally the farmer will not want to market another crop in that way. He has been fattening the wrong hog.—Wall Street Journal.

The Wall Street Journal has made a very grievous blunder in the intimation that the Western farmer has been fattening the miners as "the wrong hog." That is the only inference which could naturally be drawn from this editorial. But there are other "hogs" whom the Western farmer and all other farmers have been fattening which the Wall Street Journal has not even named by inference. The miners are not guilty of being hogs. They may be guilty of unwisdom in asking for an increase of pay, but there are a great many bankers who have been fattened by the Western farmer and the Southern cotton grower. Did the Wall Street Journal class them as "hogs?" There are some banking interests which have made enormous profits during the last few years, for instance, the Reserve Banks which starting with a capital of \$36,000,000, seven years ago have accumulated \$215,000,000 surplus after paying \$125,000,000 franchise tax to the Government. Surely the Wall Street Journal did not have that organization in mind, or as a Western banker calls them, "that bunch," when referring to the "wrong hog."

But it is necessary sometimes for newspapers, to be very careful in the use of language when referring to any class of people as "hogs." In this case the Western farmer knows whom he has been fattening. He knows for instance that he has been forced to sell his grain to Europe at an unprecedented rate, below the cost of production, because his loans were being called by the banks, and he has certainly been fattening Europe at his own expense. We hope the Wall Street Journal did not mean to insinuate that Europeans buying American grain at panic prices have been "hogs." The Europeans were only availing themselves, shrewd, sharp traders as they are, of the opportunity which American bankers gave them by breaking down the price of farm products.

### A WARNING AGAINST SEEKING TO CONTROL PUBLIC SENTIMENT FOR THE FEDERAL RESERVE BANK MANAGEMENT.

**T**HEODORE H. PRICE, in Commerce and Finance, in discussing the very serious accusation against the action of the Federal Reserve Bank of Atlanta in utilizing the speech of Secretary Carter Glass to force an expression of opinion from banks and others in favor of the statements made by Senator Glass says:

"We have studied American history and the temperament of the American people, to no purpose if we are mistaken in predicting that unless this erroneous and ego-centric conception of what the Federal Reserve Banks were created for is speedily and utterly abandoned the whole system will be ultimately scrapped. We strongly recommend that all those who are interested in this very important matter should read the whole debate upon Senator Heflin's resolution demanding an investigation of the action of the Atlanta Bank in sending out the letter quoted."

In the same article Mr Price says:

"We have pointed out that two previous efforts to establish a centralized banking system in this country were failures because the people becoming suspicious of their power and political activity destroyed the First and the Second Banks of the United States and we have warned our readers that history might repeat itself unless the officers of the Federal Reserve System were particular not to exceed the functions assigned to them in the Federal Reserve Act."

This is the position which the MANUFACTURERS RECORD has taken for the last two years. The management of the Federal Reserve Board and the Federal Reserve Banks have undertaken to develop a power in shaping public sentiment for the benefit of this banking system which has aroused the hostility of the country and endangers the existence of the system.

A distinguished attorney in a recent letter to the MANUFACTURERS RECORD said he had been interested in noting that while the Democratic party under Jackson destroyed the power of the United States Bank, the Democratic party under Woodrow Wilson had created a banking system far more powerful than that of the United States Bank.

Senator Heflin has rendered the country a distinct service of inestimable value in his presentation of the mistakes made by the Federal Reserve management; but we cannot agree with his position that the Federal Reserve System is in itself perfect and that the only difficulty has been in bad management. Any banking system which gives to seven men the complete and absolute domination over the business of the country has in its very existence the seed of a harvest of possible evil too great to be endured. If President Wilson so signally failed in selecting men for the management of the Federal Reserve Board what proof have we that any other president will be more successful in selecting men who must be as wise as Solomon and as far above the frailties and the temptations of mankind as the angels in heaven? And we have never yet found on this earth men quite equal to that position.

## PROSPERITY COMING.

**M**R. JOHN SEVIER ALDEHOFF, of Dallas, Tex., cuts from the big head lines of a Dallas paper the wording

## RESERVE BOARD SAYS

## ERA OF PROSPERITY

## JUST AROUND CORNER

and underneath this big lettering he writes as follows:

"Coming or gwine?"

"The statement is mystifying—for it does not specify which corner. The country would delight to interpret it as applying to the high corner. But, with failures increasing daily and liquidations multiplying it may be the assertion was intended to refer to the off corner. Possibly prosperity's cycle is like unto Halley's Comet, so vast it is having trouble to make the high corner.

"At any rate whenever prosperity does heave around the high corner, and albeit we may see silhouetted in its phosphorescent tail blasted hopes and wasted lives, the people will turn and sing their praises of God's protecting hand, thankful to Him for their indomitable energy and the perseverance which brought them through, but never a paean to the Reserve Board, that has put upon them a 'burden grievous to be borne.'"

Yes, prosperity is coming. The fight, for easier credits for a change of policy on the part of the Federal Reserve Board has been won, and the people can praise God for the signs of better times.

## ARE WE COWARDS ALL?

**O**NE of the great bankers of the West recognized in Wall Street and elsewhere as one of the ablest bankers in the country, in a letter to the MANUFACTURERS RECORD referring to some of the actions of the Federal Reserve management said: "Such arbitrary methods are simply beyond comprehension as they are fundamentally wrong and inequitable."

"A body hardly dares express a frank opinion publicly, as the iron hand of a despotic power is not to be ignored."

When the MANUFACTURERS RECORD asked the privilege of publishing in full the letter from which these sentences are taken, the Western banker wrote:

"The facts are true, but I fear to be so open in an expression of disapproval. You may not fully realize the power of that bunch, but I frankly say to you that I reiterate my last expression of my letter to you of the 8th, and therefore I try to be cautious."

And yet the "iron hand of despotic power" holds this great banker, known and honored by the bankers of the country, in mental slavery, daring not to express an opinion contrary to the actions of the Federal Reserve management regardless of how deeply he feels on the subject. What an infinite pity that there is in existence in this country a power so despotic and so enslaving in its effect.

This same banker added in his letter: "Your roasts on extravagant buildings, big salaries, outrageous incomes on forced immense reserves, forced from remittance of checks, competition for loans (as money rises the kicks will increase)

etc., are greatly enjoyed and to my mind fully justifiable. These banks should be our servants, not our masters at any time."

And this is the view expressed by a banker whose view tallies with the language of Senator Owen, one of the fathers of the Federal Reserve System, who in a letter to the MANUFACTURERS RECORD two years ago said: "So great is the power of the Federal Reserve System that bankers dare not criticize it for fear of their own destruction."

And shall the American people, who have never before been charged with being cowards, permit a little oligarchy of financial despotism make them afraid to say that their souls are their own?

COUNTRY'S COAL PRODUCTION DECREASED  
24 PER CENT LAST YEAR: SOUTH'S PRO-  
PORTION TO COUNTRY'S OUTPUT INCREASED.

**L**AST year the estimated coal production of the United States was 494,500,000 short tons, 407,000,000 tons of bituminous and 87,500,000 tons of Pennsylvania anthracite. Compared with 1920, this is a decrease of 158,589,000 tons, or 24 per cent and about 700,000 tons less than the country's coal output of 1911. In 1920 the United States produced 653,089,000 tons; in 1919, 553,952,000 tons; in 1918, 678,211,000 tons; and in 1917, 651,402,000 tons.

According to figures compiled from the latest report of the Geological Survey the coal production of the Southern States for 1921 was 137,550,000 short tons. This is a decrease, compared with 1920, of 39,000,000 tons, or about 22 per cent. The rest of the country outside of the South during that period showed a loss of 119,000,000 tons or over 25 per cent.

While the South's production last year about equaled that of 1914, there was a decrease in the coal production of the rest of the country outside of the South, in 1921 compared with 1914 of 18,770,000 tons, or over 3 per cent. Notwithstanding the lessened coal production last year, the South is producing about 28 per cent of the country's output as compared with about 24 per cent in 1911. Part of the good showing in the Southern coal industry is due to the fact that most of the mines are in non-union territory and were able to operate, being free of the domination of the radical foreign labor agitator. It must also be taken into consideration that in some Southern States, the lessened coal supply does not necessarily measure the actual loss in power generated and consequent lessening of industry, for throughout the South waterpowers are being extended and developed, relieving the demand for coal to the extent of the horsepower thus hydro electrically produced.

The following has been compiled by the MANUFACTURERS RECORD from a recent report on the coal production of the United States by the Geological Survey:

## PRODUCTION OF COAL IN THE SOUTH, BY STATES, AND TOTAL FOR UNITED STATES, 1911, 1914, 1920 AND 1921.

	1911. (Short Tons)	1914. (Short Tons)	1920.* (Short Tons)	1921.† (Short Tons)
Alabama	15,021,421	15,593,422	16,140,099	12,200,000
Arkansas	2,106,789	1,836,540	2,050,596	1,400,000
Kentucky	13,706,839	20,382,763	35,528,762	30,000,000
Maryland	4,085,795	4,132,547	4,030,239	2,500,000
Missouri	3,760,607	3,935,980	5,266,565	3,700,000
Oklahoma	3,074,242	3,988,613	4,830,288	3,300,000
Tennessee	6,433,156	5,943,258	6,585,628	4,400,000
Texas	1,974,593	2,323,773	1,615,015	1,050,000
Virginia	6,864,667	7,959,535	11,244,106	7,800,000
West Virginia	59,831,580	71,707,626	89,450,707	71,200,000
Total South	117,459,689	137,805,057	176,742,005	137,550,000
Total Bituminous	405,757,101	422,703,970	563,490,845	407,000,000
Pennsylvania (Anthracite)	90,464,067	90,821,507	89,598,249	87,500,000
Total United States	496,221,168	513,525,477	653,089,094	494,500,000

(\*) Excludes output of Bituminous wagon mines.

(†) Estimated.

## WHY THE PEOPLE OF THE COUNTRY WANT THE GOVERNMENT TO TURN MUSCLE SHOALS OVER TO HENRY FORD.

Industrial Board,  
Chattanooga Chamber of Commerce,  
CHAS. W. HOWARD, Manager.

Chattanooga, Tenn., March 25, 1922.

### Editor Manufacturers Record:

That practically the solid South is backing Henry Ford for Muscle Shoals is not because Ford is Ford; his name might be Smith, Jones or Rosenheim. It is the success' back of the name, that causes the enthusiasm for Mr. Ford. In this "work a day" world of ours, practical accomplishments make the name. In the attitude of the South, toward Mr. Ford, there is no hysteria or blind hero worship; it is tangible, valuable business accomplishments. The South does not place him on a pedestal and worship him as an all-wise beneficent philanthropist, although he could be classed as one of the most practical philanthropists of this or any other age. Philanthropy is not always practical; Ford has made it so. One only has to travel in the rural districts to appreciate the fact that Ford, as no other man, has brought the farmer and his family more of the social side of life, tinging the drab of their existence with a glow that never before touched it; if his contempt for combinations and trusts had been less, there would be fewer Ford cars in the rural districts today; we can only judge man, or estimate the future, by considering the past, and Ford's past holds more of promise to farm life than that of any other one man in the United States. A foretaste of that can be found in the price of his tractor today; a gentleman's agreement with other producers of tractors would have added several hundred dollars to the cost of the farm tractor, and the farmer would have only had the great American privilege of taking it or leaving it.

Ford realized as far back as March, 1919, that a fair-priced, thoroughly efficient farm tractor was just one step in the right direction; to take it and stop would most certainly limit the demand for tractors; the next step and, if anything, more important than the first, was a fertilizer, giving new life to the soil and that did not exact the life of the farmer and his family as return for a few tons of ground limestone, shale or slag, mixed with a few pounds of nitrates. Ford is going into the fertilizer business, not for the sake of philanthropy, but for business. Fertilizer of the same value as that which has been selling to the farmer for from \$40 to \$75 per ton, can be sold for from \$20 to \$25 per ton, and on this basis of price, Ford can exact his permissible eight per cent, and cheaper fertilizer means greater crops per acre and more acres in cultivation, and more acres in cultivation means more tractors; call it what you may—greed, business or philanthropy; it is the thing above all other things in a material way, that the farmer needs and must have, or we will see, as certainly as night follows day, an annual decrease in the tribe of the farmer.

Mr. Ford has this in his head, and it isn't a dream; it's a carefully thought-out plan, and he is able to make the plan effective, as he occupies the position of being the only man in all this broad land, with a well-defined plan, and a thoroughly equipped bank account to make blue prints and actual production synonymous.

This is why, or at least, some of the "whys" that the entire Mississippi Valley demands that the Government waive its love for red tape and precedent and contract with Mr. Ford. The people know what they want; it is not a "Jug-handle" proposition by any means; Ford and Ford's successors will unquestionably make millions out of this contract and just as certainly the farmers of the Mississippi Valley and the tremendous interests that can only succeed as the farmers succeed, will also make untold millions out of it, in

better crops, greater yield per acre, more acres in cultivation and at less back-breaking effort.

This statement may or may not have value; if of no value, then it has the distinction of being the first truth ever uttered, that failed to carry a tangible worth. It was not written and not paid for by Mr. Ford, or any interest that he represents.

CHAS. W. HOWARD.

## THE COKE INDUSTRY IN 1921.

IN 1921 the output of by-product coke was almost 20,000,000 tons, and that of beehive coke was about 5,500,000 tons. This is in striking contrast to 1920, when the output of by-product coke was more than 30,000,000 tons and that of beehive coke was more than 20,000,000 tons. The output of beehive coke in 1921 was less than in any other year since 1885. The monthly average for 1921 was only about 27 per cent of that for 1920. The output of by-product coke in 1921 was practically two-thirds that in 1920. It is further reported by the Geological Survey that this comparison of 1921 with 1920 becomes still more striking if it is remembered that 1920 was easily the "banner" year in the production of by-product coke in the United States. In other words, despite the extraordinary slump in business, which greatly lowered the output of by-product coke, it was greater in 1921 than in any preceding year except 1917, 1918, 1919, and 1920.

The continuance of activity in by-product coke is explained as being in part due to the economic superiority of the by-product ovens over beehive ovens, and in part due to the fact that many by-product coke-oven plants require elaborate organization and represent large investments which must be kept active in order to preserve the working force intact and prevent undue deterioration of the plants. Furthermore, the gas produced at many by-product coke-oven plants is sold under contract to public utility companies that supply gas to near-by communities. In view of these facts, the Survey states the greater production reported by the by-product coke industry in 1921 can not be considered a measure of the relative cost of production in beehive and by-product ovens.

### PRODUCTION BEEHIVE COKE.

	1920 (Short Tons.)	1921 (Short Tons.)	Decrease Per Cent.
West Virginia .....	1,381,000	271,000	80
Alabama .....	1,069,000	354,000	67
Tennessee .....			
Georgia .....			
Virginia .....			
Kentucky .....	1,300,000	374,000	71
South .....	3,750,000	999,000	73
Rest of Country .....	16,761,000	4,562,000	72
United States .....	20,511,000	5,561,000	73

### PRODUCTION BY-PRODUCT COKE.

Alabama .....	3,124,000	2,406,000	23
Kentucky .....	467,000	186,000	60
Maryland .....	682,000	293,000	57
Tennessee .....	139,000	58,000	58
West Virginia .....	447,000	184,000	59
South .....	4,859,000	3,127,000	35
Rest of Country .....	25,975,000	16,791,000	35
United States .....	30,834,000	19,918,000	35
TOTAL PRODUCTION COKE.			
Total South .....	8,609,000	4,126,000	52
Total Rest of Country ..	42,736,000	21,353,000	50
Grand Total United States	51,345,000	25,479,000	50

## ASPIRATIONS GO WRONG SOMETIMES.

THE Baltimore Sun heads a despatch from London referring to Ambassador Harvey as "Harvey Reported to Have Presidential Aspirations."

Millions have had Presidential aspirations with just as much chance for realization as Harvey has.



### WOOL CONSUMPTION AND STOCKS.

**L**ARGE stocks of wool exist in practically all the leading wool-producing countries, but the supply in the principal consuming countries is less than has been recorded for some time, and is insufficient to meet present demand, states the Agricultural Department. The inability of consuming nations to obtain stocks is ascribed to the unsettled economic conditions throughout the world.

Stocks of wool in the United States are probably lighter than in a decade, it is said. Stocks of fine wool for which consumers continue to show a preference despite higher prices are exceedingly light. Manufacturers in the United States are operating about on a normal basis as indicated by the monthly rate of consumption and an enumeration of active and idle wool textile machinery.

Stocks in Great Britain, France and Germany are also estimated as lighter than at any time during the past ten years. The low wools, tops and yarns seem to be neglected regardless of the low price quoted on these wools. The worsted mills of France are running to capacity, and the finished goods are being readily disposed of.

In Germany textile plants are running as fully as the supply of raw material will permit.

United States Government holdings of wool on December 31, 1921, were about 19,000,000 pounds, equivalent to 60,000 bales of 330 pounds each, as compared with 100,000,000 pounds or 300,000 bales, December 31, 1920. British Australian Wool Realization Association stocks of Australasian wool on December 31, 1921, totaled 1,890,000 bales. On August 31, 1920, the B. A. W. R. A. holdings totaled 2,708,000 bales, including wool in the growers' hands. The 1921-22 Australasia shearing season is now in progress, the Australian and New Zealand clips having been officially estimated at 2,420,000 bales. Wool stocks in the central markets of South America on January 1, 1922, were estimated at approximately 37,000,000 pounds, as compared with 40,000,000 pounds January 1, 1921. In South Africa the supply of fine grades of wool is insufficient to meet the demand, and may be entirely exhausted within two months.

The continued demand for fine wool throughout 1921 was reflected in increased prices for that grade during the latter part of the year. Present world prices are low compared with wartime prices, but are higher than the prewar prices.

Total world wool production during prewar years was just sufficient to meet the world's requirements. As demand increased from year to year production was not increased in the same proportion, and the present sheep population of the world is only about 90 per cent of the 1913 sheep population. World prewar production based on yearly figures for the five-year period 1909-1913, inclusive, was 3,152,000,000 pounds. Production during the present season is estimated at less than 3,000,000,000 pounds. Production in the United States, exclusive of pulled wool, has decreased from 250,000,000 pounds in 1919 to 224,000,000 pounds in 1921.

### COTTON GINNED IN 1921.

**A**CCORDING to the cotton ginning report of the Census Bureau, 7,952,539 bales of cotton were ginned in 1921. In December last the cotton crop of 1921 was estimated by the Agricultural Department at 8,340,000 bales. Compared with the 13,439,603 bales ginned in 1920, the amount ginned last year was 5,487,064 bales or over 40 per cent less. In 1919, 11,420,763 bales were ginned.

The amount of American-Egyptian cotton ginned last year was 37,094 bales compared with 92,561 in 1920, and 40,437 bales in 1919. The number of Sea Island bales ginned in 1921 was 3316 bales; in 1920, 1868 bales, and in 1919, 6916 bales.

### WORLD SHORTAGE OF COTTON.

**R**EVIEWING the statistical position of cotton throughout the world, the Wall Street Journal closes an editorial statement with the following:

"All statistics and facts point to a crop of cotton during the 1922-23 season that will fall considerably below the world's need, with no carry-over to eke out the short production."

That is the view which the MANUFACTURERS RECORD has constantly taken, and in the light of that situation, cotton ought to be selling at a very much higher price than it is now bringing, and the new crop ought to be held by the producers for a price commensurate with the cost of cotton raising and with the inevitable world demand for it. The South has too long sacrificed itself in the matter of cotton for the enrichment of other sections and other countries. It needs now to take care of its own requirements and build a larger and more desirable prosperity on the strength of a better price for the cotton which it produces, and without which the world would have to go naked.

### Copper Mining in Virginia.

The Gooney Manor Copper Co.,

Front Royal, Va., March 27, 1922.

*Editor Manufacturers Record:*

At the upper end of the Shenandoah Valley, there has been found to exist a flow of eruptive schist impregnated with primary copper ore in the form of chalcopyrite.

The flow as now discovered occupies almost the entire area of two hundred acres, with some minor vents of the same character surrounding this area, and which wherever penetrated shows unmistakable evidence of the same character of mineralization.

The surface of these deposits show the primary ores to have been decomposed and the copper metal leached therefrom by the descending waters, but there are sheltered spots and zones in which the decomposition has not reached, or have been less active, which shows the unaltered mineralization and exposes clean bright copper sulphides, all of which carry a liberal percentage of copper combined with small amount of gold and silver.

The schists are composed of a species of eruptive trap or basalt in which the described minerals are not only distributed in the shrinkage cracks, and cleavage seams, but also being sandwiched between the walls of the most attenuated laminae or scales of which the schists are constructed, and when released from the mass they readily disintegrate into.

There is no discovered evidence of any defined vein existing in the region, but the entire mass of the described schistose formation is impregnated with copper mineral as described.

Other vents of flows of these schists are discernible at widely separated points along the Valley,—the intervening formation being a syenite or perhaps a quartz-porphry of which there are extensive areas which show superficial evidence of copper impregnations also.

The most conspicuous of these schist flows are being explored and developed by the Gooney Manor Copper Co., Inc., whose property and plant are situated near the banks of the Shenandoah river about 4 miles southwest of Front Royal, on the Norfolk & Western Ry, their property being served by spur from this road.

This company has already developed two shafts of 228 and 250' respectively and laterals in length of 250' in length, and have a considerable steam operating plant consisting of hoisting engine; air compressor; machine drills; and a water supply system.

A thorough system of exploration and development is now in progress.

L. C. TRENT,

General Manager and Constructing Engineer.

# What \$50,000,000 for Good Roads Construction Means to North Carolina.

WHOLE STATE INSPIRED TO GREATER ACTIVITIES—NOTE OF OPTIMISM PREVAILS AMONG THE PEOPLE—REMARKABLE ORGANIZATION TO CARRY ON GOOD ROADS WORK—TOTAL EXPENDITURE \$27,750,000 IN SIGHT FOR 1922.

BY ALBERT PHENIS.

Raleigh, N. C., March 24.

At the outset of a trip South, undertaken to see how many omens of reviving prosperity and how much evidence of accomplished improvement in business and industry an observer may be justified in chronicling, I am tremendously impressed by the testimony of Arthur Page, State Highway Commissioner, as to what has occurred here following the inauguration last year of a plan to spend \$50,000,000 for good roads in North Carolina. While no claim is made that all vestiges of the depression have disappeared; that people have paid all their debts or that the farms, the factories and the stores, are thriving everywhere, it is declared that substantially all North Carolina is on the upgrade; that the dominant note now is one not only of hope but of optimism, and that the people of the state are bending to their work with a marked degree of cheerfulness and confidence.

The huge road building program was adopted in March, 1921. There had been a period of almost despairing gloom, with a slump that followed the days of 40 cent cotton and dollar a pound tobacco. The new road Commission, with authority to spend \$10,000,000 a year for five years, lost no time in getting down to work, and the money at once put into circulation and the state administrations inspiring courage and big vision seemed to immediately work a transformation in the spirit of the people. With the state as an example individual initiative and enterprise seemed to have been vigorously aroused with the result, as Mr. Page declared, that the people of North Carolina did more hard work in 1921 than they had done in any year in the last decade. "The good roads program was the salvation of the state," said Mr. Page, "and in addition to the immediate, tangible benefits which have resulted, I believe that as an advertisement it will be worth all that it will cost. North Carolina stands out as the one Southern state, outside of Texas, where a great road-building program has been put under way, and I believe that this conspicuous example of public spirit and enterprise will attract to North Carolina new investments from outside that will fully equal the \$50,000,000 expenditure our good roads program will entail."

The same legislature that passed the good roads law provided for new school and other public buildings in a

liberal way, and the spirit reflected here is also shown in the building activities of cities and towns all over the state, whose aggregate of building plans runs into the tens of millions of dollars, Raleigh's alone footing up some six or seven millions—a further indication that North Carolina is on its toes and is forging ahead.

In the way of good road activities, the work completed in 1921 was of notable amount and importance, totaling more than \$7,000,000, in spite of the fact that the new commission did not get into full swing until July, some months having been required to complete an organization.

Mr. Page had been Highway Commissioner for two years before the new law went into effect. He is of the well known North Carolina family of that name, a younger brother of the late Ambassador to England, an efficient, all around man of affairs, who had seen service abroad during the war. However, until the passage of the new law, the Doughton-Connor-Bowie Act, the State Highway Commission was restricted in size and scope. There were only four members, the force consisted of ten men and the work was largely supervisory. Maintenance work, when done at all, was carried on by the counties, and the Commission, having practically exhausted all the available Federal Aid funds, was undertaking little or no new work. The new law provided for the division of the state into nine districts, with a Commission composed of one member from each district and a chairman from the state at large, to be known as the State Highway Commissioner. All the improved roads of the state, of any description from sand clay to hard surface some 6000 miles in all, were put in charge of the Commission. Mr. Page was reappointed to head the Commission, and reorganization was at once begun.

Looking around for the best highway engineer available, Mr. Page was fortunate in being able to secure Chas. M. Upham, who had built the Du Pont boulevard in Delaware and was at the time Chief Engineer of State Highways of Delaware. As bridge construction is an important branch of the work, a bridge engineer, Wm. T. Craven, was appointed. Assistant engineers, in charge of various departments were added to the force from time to time, the wide publicity



THE OLD



AND THE NEW.

Recently completed concrete bridge replaces ferry formerly used for crossing Pee Dee River, shortening the route for traffic between Raleigh and Charlotte 35 to 40 miles.

given to the program attracting applications from all over the country, so that it was possible to make a pick of highly efficient men. At the present time the office and field force numbers about 600. To give working room, and office accommodations for the officials, department heads and subordinates in the various departments two stories were built on an already constructed state building, and in these two spacious floors is housed one of the most complete working organizations that could easily be found. Here draftsmen work out every detail of road and bridge construction and repair; maps and blue prints are produced in the most complete and efficient way, with such details as the very latest machine for blue print work, on which time and cost are cut down two-thirds; records are kept of every line of activity, and the accounting department checks up every penny spent;



TYPICAL IMPROVED COUNTRY ROAD, WITH CONCRETE CULVERT.

there are departments of photography, publications and statistics, and of laboratory work tests, investigation and research, and in every detail the plans of organization and operation is so complete and so methodically worked out that every activity can be checked up at any time. The machinery runs like clock work and the maximum of results is obtained at a minimum of cost by the elimination of confusion, uncertainty and lost motion.

An achievement of prime importance, a feature really vital to the successful operation of the vast plan on an economic basis, was the acquisition of equipment from the Government under the provisions of the Wadsworth-Kahn Act; motor trucks, autos, motorcycles, etc., left over from the war were made available for good roads construction, at no cost to the various states beyond freight transportation charges. Immediately upon the reorganization of the North Carolina Highway Commission steps were taken to secure an ample supply of such equipment. As a result there are now at the equipment depot of the Commission and in use throughout the field 720 motor trucks, 100 touring cars, 100 motorcycles, camp kitchens, derricks, cranes, steam shovels, and spare parts, tires, etc., besides thousands of handsaws, picks, axes, shovels, and other tools and implements—altogether some \$4,000,000 worth of equipment. A complete machine shop and repair plant has been erected on a part of the five acre tract purchased for the equipment depot, and with lathes, cranes, and all necessary tools and equipment, repairs to any and all parts of the trucks and cars are made and engines are overhauled, electrical repairs made, and everything done except casting, and on notification parts are shipped to any part of the field, and damaged parts are detached and sent in when needing repairs.

On this tract there is nearing completion a concrete testing laboratory, which will be one of the largest and most complete in the country.

All this development is under the direction of a native genius named C. D. Farmer.

Engineers from all over the country visit Raleigh to be told how the great road building program of North Carolina is being worked out. Admiration and even amazement are expressions often heard after a talk with Mr. Page and his chiefs, a trip through the "plant" and a visit to the wonderful equipment department on the outskirts of Raleigh. To the outsider, with hazy notions about things of the South, it is an eye-opener to find that here in North Carolina is an undertaking not excelled in scope, plan and management by any similar work anywhere, and not even remotely approached except, at most, in two or three states. As in no state in the South, and in few elsewhere, here is a real state system of highway construction and maintenance, directed from one central head and reaching out to the remotest country town in the state—a unified, comprehensive plan for linking up every county seat with a main highway and meeting and matching every national road at the borders of the state.

While hard surfaced roads are the goal to which all road builders aspire, and which recent lettings here at \$25,000 a mile instead of the former \$40,000 to \$50,000 will make possible in increasing numbers of instances, the economic aspect of the situation is always in mind. Wherever possible existing sand clay roads, top soil roads and those of macadam are repaired and maintained, till such time as increasing travel or population to be served will justify the more costly reconstruction. Research and laboratory work is in constant operation, and some new types of low priced roads are under development.

Under the terms of the act, an expenditure of \$10,000,000 a year is provided for, although this amount may be increased, at the discretion of the Commission, and with the approval of the Governor and Council of the state, should conditions justify. On account of present favorable circumstances—decrease in labor costs, some materials, etc., resulting in lower bids than for some time—it is likely that nearer \$20,000,000 than \$10,000,000 will represent the expenditures by the Com-



SAMPLE COUNTRY ROAD IN NORTH CAROLINA DURING RAINY SEASON.

mission in 1922. The way things are going now Mr. Page estimates that a pay roll of \$1,000,000 a month for construction will be under way by the 1st of May.

In addition to the \$50,000,000 program by the state, there is a Federal Aid appropriation of \$1,750,000 for 1922. By the terms of the Woodruff bill, now before Congress there would be a Federal Aid appropriation of \$75,000,000 for five years, of which North Carolina's portion would be \$10,000,000. On purely local roads the counties will spend in 1922 an additional \$6,000,000. Leaving out of consideration the possible \$10,000,000 of Federal funds, there is in sight for North Carolina for 1922 in state, Federal and county expenditures for good roads according to plans definitely made, a total of \$27,750,000.

Isn't there a note of optimism in this big fact?



## North Carolina's Wonderful Industrial Progress Should Be a Lesson to Other States.

Charlotte, N. C., March 20—[Special.]—North Carolina which has now an available supply and is utilizing 360,000 horsepower of electrical energy, will require 350,000 more horsepower by 1925, declared John W. Fox, contract engineer of the Southern Power Company in an illuminating discussion of power development by his company since 1905, delivered before the members of the Charlotte Rotary Club. Mr. Fox showed, by statistics and by charts, that the development of the textile industry in the two Carolinas has been in proportion to the development of cheaper power and that the industry has been largely following the two transportation system of the Southern Railway and Southern Power Company.

That North Carolina, which was eclipsed by South Carolina in the number of spindles in 1905, when the Southern Power Company was organized and started business, has forged ahead of the sister-state in 1922, was another interesting declaration of the speaker.

In 1905, South Carolina had 2,972,000 spindles, while North Carolina 1,910,000 spindles, a total in the two states of 4,883,000.

In 1922, Mr. Fox said, there are 5,402,348 spindles in North Carolina, whereas, in South Carolina, there are 5,125,000 a total in the two states of more than 10,000,000 spindles.

Eighty per cent of all the power that travels the lines of the Southern Power Company goes into the textile mills in the two states. Of the total spindleage of the two states, the power company supplies 4,721,000 with its current.

Mr. Fox said that there has been developed in North Carolina so far, 360,000 and that the total available horsepower in the state is in excess of 1,000,000.

"We are called a trust," he said, "an octopus that has its grasp everywhere and that must be consulted by everybody in the Carolinas before anything is undertaken. Just to what extent the Southern Power Company is a trust," he declared, "is shown by the statistics produced by the state government showing that of the 360,000 horsepower so far developed only 63,000 are credited to the Southern Power Company. Several other companies are making much more power in this state than we are." And of this 360,000 horsepower, 32 per cent of it is being transmitted out of the state, whereas the Southern Power Company, put into North Carolina 70 per cent of all the current taken into the state. It comes out of South Carolina.

Mr. Fox said that the Southern Power Company has entered 75 cities and towns in North Carolina, runs 300 cotton mills and Tuesday it was carrying on its lines 300,000 horsepower.

The three dominant industries in North Carolina, declared Mr. Fox, are those of furniture, hosiery and textile. In the furniture industry there is an investment of \$140,000,000 with an output of \$20,000,000; in the hosiery and knitting industry there is an investment of \$31,000,000 and an output of \$23,000,000; in the textiles there is an investment of \$166,000,000 with an output of \$237,000,000.

The three chief industries in South Carolina are fertilizer, oil mills, and cotton mills. Seventy per cent of South Carolina's industrial development is in textiles, whereas in North Carolina only 17 per cent of our industrial development is textiles.

"Those who have been wondering why it is that the state should be so fortunate at this time in suffering fewer of the disasters of the period of depression than other sections have the answer right here," Mr. Fox declared.

"We have a varied and versatile industry, highly diversified whereas, in many other sections, the industrial investment

has gone into some one branch of activity, as in the case of 70 per cent of South Carolina's industries being incorporated in cotton mills."

In addition to three dominant industries of the state which the speaker mentioned, furniture, hosiery and textiles, he said that the tobacco factories consume one fourth of all the leaf tobacco produced in the United States.

North Carolina has an industrial investment of \$934,000,000 and South Carolina has a similar investment of \$243,000,000.

"We are just at the beginning of the power development in North Carolina. It happens to be the biggest company operating so far and has put between \$60,000,000 and \$70,000,000 in this industry so far, but there is room for others who have a faith that we have in this great state of North Carolina, and there is undeveloped power enough for any number of such companies."

## A Bit of Italy in the South—Colony of Waldenses Active in Textile Industry of North Carolina.

Raleigh, N. C., March 25—[Special.]—In 1893 a colony of Waldenses arrived in Burke County, North Carolina, and bought a large area of what was popularly considered very poor land, in the foot hills of the Appalachian Mountains, known in this state as the Blue Ridge. They came from a high mountain region and wanted the same environment here. They lost no time in getting to work and have, one may say, remade their territory. Not only have they done this but their skill, energy and thrift, have greatly stimulated their native-born neighbors.

There are 40,000 members of this colony, and while they came from within the borders of Italy, their language is the French. They are in belief Calvinists and have the Presbyterian form of church government. They have made three other settlements, these being at Marseilles, France; Rosario, Argentine Republic, and Monett, Mo.

They have gone largely into textile manufacturing and own and operate the following mills: Banner and Glen Alpine Knitting Mills; Collettsville and Pauline Hosiery Mills and the Liberty. They are now arranging to make silk hosiery, and let it replace cotton gradually.

Their church and their village, Valdese, are like a bit of high Italy; a great deal of stone from their fields and quarries is used in buildings and terrace-walls; there is a fine school, with community play ground, library and swimming pools. The heads of the mills advance funds to their employees for the building of homes. They have also a macaroni factory, box factory and community bakery turning out 1500 loaves a day. The mayor of Valdese is Francis Garron, who came with the first settlers.

## SOLDIERS MEMORIAL AUDITORIUM, CHATTANOOGA.



This impressive structure to be erected at Chattanooga, Tenn., by Soldiers Memorial Auditorium Commission, Z. W. Wheland, Chrmn.; cost about \$450,000; 157x280 ft.; steel frame with reinforced concrete; low pressure steam heat; R. H. Hunt Co., Archt., Chattanooga; contract to be awarded about April 1.

## UNITED STATES STEEL REPORT FOR 1921.

### Railroad Freight Charges Represent More Than Forty Per Cent of Cost of Making Steel—Volume of Business for Year Over \$986,000,000.

The volume of business transacted during 1921 by the United States Steel Corporation and its subsidiary organizations reached the impressive total of more than \$986,000,000 and yet it was a poor year in the steel industry especially as compared with 1920, when the volume of business exceeded \$1,755,000,000. The balance available for dividends was \$36,617,017, or something more than \$14,000,000 less than was necessary to pay 5 per cent on the common shares and 7 per cent on the preferred, so the needed amount was taken from the undivided surplus to provide for the dividend distribution of \$50,634,802. The total undivided surplus on December 31, 1921, exclusive of profits earned by subsidiary companies on inter-company sales of products on hand in inventories on that date, was \$508,926,957.

The total earnings, after deducting all expenses incident to operations, including ordinary repairs and maintenance, (approximately \$92,000,000.) and taxes, (including reserve for Federal income taxes) were \$100,791,279.50, which, less interest on outstanding bonds, mortgages and purchase money obligations of subsidiary companies left a balance of \$92,726,057.92. Deducting from this, charges and allowances for depletion and depreciation amounting to nearly \$28,000,000 and the amount paid to sinking funds on bonds of the Corporation amounting to over \$8,863,000, left a net income of \$55,957,832.13. After deduction of interest on U. S. Steel Corporation bonds outstanding, premium paid on bonds redeemed and then adding the net balance of sundry charges and credits, including adjustments of accounts, left a balance of \$36,617,017.19 available for dividends.

In his general remarks upon the business of the year Chairman Elbert H. Gary says:

"The marked decrease in the demand for iron and steel products which developed in the midsummer of 1920, continued until the early fall of 1921, when there was some improvement. As stated in the annual report for last year the subsidiary companies carried forward into 1921 a substantial tonnage of orders for steel products. This enabled them to operate at an average of somewhat over 70 per cent of capacity during the first quarter. The degree of operations dropped in succeeding months and reached the low point for the year in July when the output was only about 29 per cent. The average production for the entire year in rolled and other finished products for sale was 47.5 per cent of capacity, the lowest ratio of production to capacity in any year since the organization of the Corporation. Concurrently with the decrease in demand for steel products there were marked declines in the prices obtained for nearly all classes of the same. These price reductions as a rule exceeded the decreases it was possible to effect in the cost of production through the reduction in unit prices of factors entering into cost of operations and the exercise of rigid economies. A number of elements in the cost of producing steel show little if any recession from war-time figures, notably that of railroad transportation, which on basis of existing rate conditions averages in the case of the subsidiary companies upwards of forty per cent of the total cost of producing steel. At the close of the year the prices prevailing for some products were below the cost of production. Since the beginning of 1922, and to the date of writing this report, the new orders received have been equal to about one-half the total capacity of the plants of the subsidiary companies."

It is noted that the Tennessee Coal, Iron & Railroad Co. during the year completed and placed in operation a modern car building plant at its Fairfield works. This plant has a capacity for building 7,200 steel cars annually and for the rebuilding and repairing of 6,000 cars. Other improvements by this subsidiary include, at the Ensley works, the completion of a dry gas cleaner for blast furnace No. 3, rebuilding blast furnace No. 4, construction of an 8 inch air line from the blooming mill pump house to the foundry, comple-

tion of a 200 ton track scale and the reconstruction of employees quarters. At the Bessemer rolling mills new motor drives were put in for the 12 inch and 18 inch mills. At the Bessemer furnaces additions were made to blast furnace No. 4 and there were purchased 1 switching locomotive, 140 steel underframe hopper cars and 2 tank cars. A system of industrial tracks is being built to convey red ore from the mines to the furnaces. Work now in progress at Ensley includes an additional hot blast stove for blast furnace No. 1, storage facilities for rails and pig iron, and a 5,000 kilowatt frequency charger at No. 1 power house.

Other work completed to mine and quarry properties includes a double drum electric hoist, an electric transmission line and 10 mechanical unloaders, all at the Muscoda mine; additional crushing screening and washing equipment at Vann's Quarry, opening and equipping No. 18 mine at the Pratt Mines, and extension to electrical repair shop building and to pumping station at the Edgewater Mine. There is also being built an electric power transmission line from Fairfield to No. 4 mine at the Muscoda Mines; at Edgewater 100 mine cars are being provided; at Bayview Mine, additional mine and welfare buildings and 125 tenement houses are being erected and 100 mine cars are being provided. At the Docena works a pumping station for mine drainage is being built. At Fairfield, besides the fabricating and car building plant, there was completed additions to the finishing end at the bar, structural and plate mills, a tie plate finishing department and roll shop equipment at the tie plate plant. Work is in progress at the by-product coke plant on a tar storage tank and on drying equipment for ammonium sulphate.

In the Pocahontas field, West Virginia, \$148,786 was spent for additional housing facilities at different works, a filtration plant and a domestic water storage tank for Nos. 3 and 4 works, and a steel tippie and mine equipment at No. 8 works. Additions to increase plant capacity were made at No. 40 works near Phillippi.

During the year 11 ocean steamers for the United States Steel Products Co. were built at the shipbuilding plants of subsidiary companies at Kearny, N. J., and Mobile, Ala., and delivered for service.

There were 8½ miles of pipe line built from natural gas wells in Gilmer County, W. Va., to the main pipe line, and gas booster stations were erected at Toll Gate and Smithburg, W. Va. At Fairfield and Westfield, Ala., there was spent \$118,664, for employees dwellings and welfare buildings. For the construction of employees dwellings and boarding houses at limestone properties in Maryland, West Virginia and Pennsylvania there was spent \$81,714. In addition to this there was spent \$28,000, for a new crusher, a boiler, and track additions, \$39,000 for quarry equipment, and \$13,600 for rails and fastenings for track extensions.

The total of salaries and wages paid for the year was \$332,887,505, the average per day per employee, exclusive of general administrative and selling forces, being \$5.61 and including those forces, \$5.73.

The consolidated general balance sheet shows total assets of \$2,339,105,310.

### To Study Shooting of Oil Wells.

M. J. Kirwan, petroleum technologist of the Bureau of Mines, stationed at Bartlesville, Okla., will make an extensive investigation of methods now used in shooting oil wells. In carrying on this work it will be necessary to collect information on quantities of explosives used, methods of detonating, nature of charge used in various formations, transportation and storage of explosives, etc. A particular study will be made of the effect of shooting for increasing production.

## Signs of Prosperity South.

### Dallas Expects to Establish Record This Year for Industrial Growth—Many New Enterprises.

Dallas, Tex., March 25—[Special.]—Present indications are that Dallas will set a new record for industrial and commercial growth in 1922. The number of new inquiries sent to the Chamber of Commerce from corporations interested in establishing factories in the Southwest is increasing each week, and other concerns are planning extensive improvements.

Among the important enterprises to locate in the city recently are the following:

The Sickle Lumber Corporation is building a big plant at Hudnall on the M. K. & T. Railway, consisting of a big yellow pine planing mill, concentrating yard and a hardwood flooring plant. The sheds will have a storage capacity of 1,500,000 feet of lumber, and 125 men will be employed. A 17-acre site was recently purchased. The company, which is capitalized at \$400,000, is headed by A. W. Stickle.

The Goelitz Confectionery Co., of North Chicago, Ill., have leased a building and will install modern machinery in a two-story building, 50 by 90 feet.

A building has been leased by the Collinsville Manufacturing Co., of Fort Worth, for production of metal work.

A fabrication plant has been installed by the Vitrolite Construction Co., to cut, grind and polish vitrolite, manufactured at Parkersburg, W. Va., and is used for counter and table tops, wainscoting for restaurants, corridors, etc.

The American Smelting and Refining Works is installing furnaces and equipment to manufacture solder, babbitt and type metal, etc.

The Trinity Paper Mills Co. will erect a structural steel building to be completed as a modern plant for the manufacture of waxed paper, for distribution in Texas, Oklahoma, Arkansas, Louisiana and New Mexico.

A plant has been acquired by the Texas Dehydration Co., a newly organized firm with a capital of \$250,000, for dehydrating Texas fruits and vegetables.

N. O. Nelson Manufacturing Co., of St. Louis, has purchased a site, 115 by 260 feet, and will erect a large concrete warehouse for handling plumbers supplies.

In addition many smaller concerns have located in the city, either leasing established buildings or purchasing sites on which to erect their plants.

Building permits issued since the first of the year have a valuation of more than \$4,500,000, and with only 19 per cent of the year gone the aggregate value for the current year is approximately 30 per cent as large as the total for last year when a new record for slightly more than \$15,000,000 was set. For the week ended March 20 the value of permits issued was \$248,692, and of 104 permits issued only one was above \$10,000, this being a \$13,000 eight-room brick veneer residence. One other residence permit was for \$9000, the others ranging from \$100 up. The totals for the first two months of the year were the highest in the history of the city for similar periods.

### Home Building Features Birmingham Activity.

Birmingham, Ala., March 11—[Special.]—Home building that last year was the feature of local construction stands out prominently in the activity so far this year. The 645 building permits issued in the first two months call for construction valued at \$1,549,000, compared with the valuation of \$743,999 representing 824 permits issued in the same period last year. Permits for residences total 187 for the two months compared with 164 for January and February, 1921.

### \$3,000,000 Building Program at Muskogee.

Muskogee, Okla., March 25—[Special.]—"The building program for this city and Muskogee county upon projects definitely determined upon with the funds on hand to carry on the work during this year is approximately \$3,000,000," according to C. C. Lydick, secretary of the Chamber of Commerce.

"The Oklahoma State Memorial Hospital is to be erected at a cost of \$1,500,000," says Mr. Lydick, "This hospital is being constructed by the State of Oklahoma and will be operated by the Federal Government, which has agreed to the plans and the operation and maintenance. The City Hospital is being constructed at a cost of \$105,000. Both institutions are located on what is known as Honor Heights, overlooking the entire city, being 200 feet above the surrounding property."

### Abilene Lets Contract for Big Water System.

Abilene, Tex., March 25—[Special.]—The City Commission has awarded contract for a big water system to the James Construction Co., now engaged in completing the pipe line to Lake Abilene, and to the American Cast Iron Pipe Co., Birmingham, for the pipe. The system will provide the city with an adequate water supply. The contract calls for the following:—5200 feet 14-inch pipe; 1600 feet 12-inch pipe; 18,400 feet 10-inch pipe; and 9600 feet 8-inch pipe. Forty hydrants 6-inch size will be installed for fire protection, together with an elaborate system of valve fittings and automatic devices. The Abilene Country Club will be supplied by a line 10,000 feet long, and a 6-inch main will be run to the epileptic colony.

### Contracts for New State Buildings Over \$300,000.

Raleigh, N. C., March 25—[Special.]—Contract for erection of the new building of the State Department of Agriculture, has been awarded to J. E. Beaman, of this city, for \$312,000, and work of razing the old building at Edenton and Halifax Streets will begin shortly. It is expected that the new structure will be completed within a year. It will be five stories and basement, and provides quarters for the library department of agriculture and a museum, legislative rooms, State Library Commission, etc. Twenty bids were received for the work, funds for which were provided by the legislature of 1919 to the amount of \$250,000. Last year \$75,000 additional was voted.

### Steady Progress on \$1,000,000 Drainage Project.

Fort Pierce, Florida, March 20—[Special.]—With four machines at work, the two largest engaged day and night, steady progress is being made on the \$1,000,000 North St. Lucie drainage district of 75,000 acres. A total of 90 miles of ditches has already been dug, the entire job involves the digging of about 287 miles, and the Board of Supervisors believe with the present progress maintained that the job will be completed by July, 1923.

### Bids Asked on Six Story Club Building.

Memphis, Tenn., March 25—[Special.]—Bids will be received by the Catholic Club Building Association on May 24 for construction of a 6-story fireproof building, 97 by 149 feet, after plans and specifications by Regan & Welle, architects, 834 Bank of Commerce Bldg. Separate bids will be taken on general contract work, heating, plumbing, lighting, etc.



### Large Sulphur Deposits to be Developed.

Freeport, Texas, March 25—[Special.]—Immediate development of the large sulphur deposit at Hoskins Mound which the Freeport Sulphur Company has just leased from the Texas Company will be started, according to definite information given out here. By one of the terms of the lease, the acquired deposit shall not be held in reserve by the Freeport Company but made a producing property as soon as the necessary machinery and equipment can be installed. It will require the expenditure of several million dollars for the establishment of the surface plant, it is stated. The owners of the land will receive a royalty of one dollar a ton on all sulphur produced. The test holes show that the sulphur bed underlies a large area and has a value of many millions of dollars. The Texas Company also is to receive a royalty on all sulphur obtained from the deposit.

### Coal Production Above Normal in Pocahontas Field.

Bluefield, W. Va., March 27—[Special.]—Production of coal on a basis well above normal is proceeding in the Pocahontas field. The total output of the Norfolk and Western mines not including Kenova district for the week ended March 11 was 620,644 tons. Pocahontas, Tug River, Thacker and the Clinch Valley district showed very material gains over the preceding week. The Pocahontas field produced 351,696 tons during the week ended March 11, while Tug River produced 110,300 tons or 80 per cent of capacity. In the Thacker field the production was 125,000 tons, the highest figure since the strike in the Williamson field two years ago. Virtually all mines are working, a majority of them on full time.

### Middle Georgia County Ships First Car Lots of Poultry, Swine, and Potatoes.

On March 8, Spalding County, Georgia, of which Griffin is the thriving county seat, shipped its first car load of chickens. On the previous Saturday the first car load of hogs were shipped, and a few days earlier the first car load of sweet potatoes. Interest in diversified farming in that part of Georgia has grown into action as attested by these car lot shipments of home grown products to other localities.

### \$250,000 Church Building Planned.

Knoxville, Tenn., March 25—[Special.]—Plans for a \$250,000 church building are being prepared by the First Baptist Church. A building committee of which Joseph P. Gaut, is chairman, has selected five architects to submit tentative plans. The structure will be adequate in size for all the planned activities making allowances for future growth. The auditorium will seat 1600.

### Six Story Office Building Planned.

Atlanta, Ga., March 20—[Special.]—Hentz, Reid & Adler, local architects, are preparing plans for a 6-story office building to be erected by Haas & Howell. Reinforced concrete faced with limestone and brick will be used; the partition walls will be of tile, making the building practically fireproof. The first floor will be occupied by stores and an elevator lobby.

### Contract Let for \$225,000 Office Building.

Charlotte, N. C., March 25—[Special.]—J. H. Jones Construction Co., of this city, has been awarded the contract for erection of a \$225,000 professional office building for the Professional Realty Co. Plans for the structure were prepared by Louis H. Asbury, architect of this city, and call for a steel frame structure, 90 by 75 feet.

### Europe Consuming More American Cotton.

Stocks of American cotton totaling 1,907,000 bales were consumed by Great Britain, France, Germany and Italy during the six months ending January 31, 1922, according to the Agricultural Department. This is an increase of 50 per cent as compared with consumption of 1,275,810 bales during the preceding six months, and an increase of more than 100,000 bales as compared with consumption of 1,789,302 bales during the six months ending January 31, 1921.

The increase in Great Britain alone was nearly 100 per cent as compared with consumption of 520,393 bales during the six months ending July 31, 1921, but it is pointed out that the low consumption during the latter period was in large measure due to the closing down of the Lancashire mills for several weeks on account of a strike of operatives.

It is reported also that on January 31 there were 56,420,000 spindles in Great Britain, 9,600,000 in France, 9,400,000 in Germany, and 4,550,000 in Italy. Stocks of American cotton in spinners' hands January 31, 1922, amounted to 506,000 bales as compared with 505,813 bales July 31, 1921, and with 486,922 bales January 31, 1921.

### Annual Meeting of Cotton Seed Crushers.

The annual convention of the Interstate Cotton Seed Crushers' Association will be held this year at the Grunewald Hotel, New Orleans, May 10, 11 and 12, and the annual convention of the American Oil Chemists' Society, an allied organization, at the same place, May 8 and 9.

P. S. Grogan, of Corpus Christi, Tex., is president of the Cotton Seed Crushers' Association this year. C. B. Cliff of New York is president of the American Oil Chemists' Society.

Because of the unusual situation in the cotton seed products industry—a short supply of seed and a corresponding low stock of oil and other products to supply current consumption, unusual interest attaches to the convention which promises to be largely attended.

### Rapid Development of Creamery Industry.

Brookhaven, Miss., March 25—[Special.]—The creamery industry is being developed in this section on a large scale. F. F. Becker, president of the Brookhaven Creamery Company, co-operating with citizens of Centerville, Gloster, Liberty, Wesson, Hazlehurst and Union Church, recently built milk receiving stations and cooling plants at those places and a contract has been closed with the Natchez Chamber of Commerce for the construction of one in that city.

### Begin Construction of Canning Factory.

Gloster, Miss., March 24—[Special.]—The Mays Food Products Company, a Maine corporation, with nine plants in five States, has begun the construction of a canning factory at Gloster. The plant will be ready for operation during the coming season. It will can all kinds of vegetables, but will specialize in yellow yam sweet potatoes.

### Business Revival Reflected in Bank Deposits.

Houston, Texas, March 25—[Special.]—A general revival of business in this city is attributed by leading bankers as responsible for the big increase in national bank deposits during the past three months. On March 10 a gain of \$6,868,624 over the total amount of deposits on December 31, 1921, was recorded.

During the week ending March 18, 1922, the War Finance Corporation approved a total of 176 advances, aggregating \$4,211,000, for agricultural and livestock purposes.

# What Many Men Are Saying.

## Read With Profit.

LIONEL ADAMS, Secretary, Industrial Bureau, New Orleans Association of Commerce—Please know that we always read the MANUFACTURERS RECORD, not only with interest, but with profit.

## Of Permanent Value.

R. M. JONES, Secretary, Chamber of Commerce, Gadsden, Ala.—We take pleasure in handing you our check for \$6.50 and we very much appreciate the Blue Book of Southern Progress.

We enjoy the RECORD and we think so much of this publication that we retain each copy, filed in date order. You are doing a wonderful work and we want to assure you of our wishes for much success.

## Americanism.

G. G. WALL, R. J. Reynolds Tobacco Company, Winston-Salem, N. C.—Enclosed find my check for \$13.00 to cover your recent invoice.

Allow me to congratulate you upon the reasonable and fully American articles you publish. They are so full of truth and justice that I am unable to understand how any patriotic American can dispute them. Here's to you—greater success and accomplishment.

## It is Already Changing for the Better, Thanks to Constant Lambasting.

C. S. MATHEWS, Mathews, P. O. La.—It is with pleasure I send you my check on the Chemical National Bank of New York, for renewal of my subscription to your valuable paper, which I read with much pleasure and coincide with your views on the financial situation which I trust will change for the better in the near future.

## We Wish So, Too.

E. H. TOMLINSON, E. H. Tomlinson & Son, Jacksonville, Fla.—Enclosed find check for \$6.50 renewal of subscription for your paper and Blue Book.

I wish I could make this check \$650 for you to spread over this land such news as the South is entitled to and deserves.

You are doing a great and good work.

## Upbuilding the South.

A. E. BROWN, Superintendent Department of Mountain Missions and Schools Home Mission Board of the Southern Baptist Convention, West Asheville, N. C.—I appreciate always the interest the MANUFACTURERS RECORD takes in our mountain school affairs. It has done more for the upbuilding of the South than any five daily papers in it, in my opinion.

Blessings on it, its editor, and its entire staff.

## Hew to the Line.

J. R. PARKER, Crystal Springs, Miss.—Please find enclosed check for my subscription to your magazine. I think it one of the greatest magazines I ever read. I also heartily endorse the fight you are making along the lines of non-partisan and strictly American Principles. Hew to the line my brother and let the chips fall where they may. Just such fights as you are making is what it is going to take to bring about a readjustment.

## Modesty Forbids Us to Accept This Compliment Even if True.

J. EDWIN WALKER, Walker and Company, Atlanta, Ga.—Here is my personal check for \$6.50 covering subscription for 1922. Per your offer you may send me a copy of the Blue Book of Southern Progress.

Without any doubt, your paper is the best in this country. I would rather do without the daily newspaper than without the MANUFACTURERS RECORD.

Success to you!

## And So Say We All and May Your Life Be a Long One.

B. D. R. ROBINSON, Sweet Fall, Va.—Enclosed please find my check for \$6.50 for renewal of my subscription to your journal. I eagerly look forward for a copy of your Blue Book of Southern Progress, which I know will be a great inspiration to all living in this favored section or others who contemplate moving to or investing in this section of God's country. I don't really know how many years I have been a subscriber to your valuable journal but I know it is a good many and I hope to continue a subscriber as long as I live.

## Blue Books Wanted.

G. D. PERRY, Madison, Ga.—Inclosed find \$3.00 to pay for ten copies of the Blue Book. I fully agree with you on deflation. I firmly believe that the Reserve Board allowed the money powers of East to get control of them. Deflation was a benefit to the big money powers to invest at deflated prices.

## A Banker's View.

M. CASHION, Cashier, Bank of Eudora, Eudora, Ark.—Herewith find check for \$6.50 covering one year's subscription to your magazine. The writer has been reading copies of the magazine lately and the fearlessness, fairness and clearness of thought of Mr. Edmonds' pen has impressed him very much. Your articles on the Federal Reserve Board are indeed fine.

## Let Others Follow His Example and Distribute the Blue Book of Southern Progress.

H. P. WILDER, South Boston, Va.—Enclosed herewith find check for \$1.20 for which please send me four copies of your Blue Book of Southern Progress. I want to present a copy of this book to the Young Men's Business Club, one to our Public Library and one to the South Boston High School Library.

I hope that you will keep up your good work in the interest of the development of the Muscle Shoals property for the benefit of the people at large instead of turning it over into the hands of the fertilizer trust.

If there were no other reason for the existence of the MANUFACTURERS RECORD than the good work you have done in the past six months in showing up the Federal Reserve Banks the world would be well repaid for your existence.

## The People Thought They Had Created a Government Institution but Federal Reserve People Claim That it is a Private Money Making Institution.

C. T. SONDELEY, Newberry, S. C.—I have been much interested in your editorials recently touching upon the Federal Reserve System. Undoubtedly it is responsible for most of our present financial difficulties.

As I understand it this System is in reality a private corporation and their power to do evil must be taken from them before we can expect any permanent relief.

The Constitution of the United States provides that Congress, and Congress alone, has the power to coin money and regulate its value. Congress has delegated this authority to the Federal Reserve System without the consent of the people who elected the congressmen, and as long as they have the power to expand and contract the currency, just so long will they regulate the price of everything we have.

The viper can be killed but it probably would be easier to draw his poison. If your judgment so dictates I would be mighty glad to see you champion the cause of having the Treasury issue our currency direct.

I have no doubt you are familiar with the Ladd bill now before the Senate. It occurs to me this is a good foundation to build from.

It is certainly a worthy cause and I trust you will continue the good work.

## The Manufacturers Record Has Been Protesting Against the South's Low Wage Scale As a Curse to This Section for a Quarter of a Century.

M. EUGENE STREET, M. D., Glendon, N. C.—Enclosed please find check for \$6.80 for subscription and the one copy of Blue Book of Southern Progress, and one extra copy of the Blue Book.

Events now transpiring make it more desirable and more necessary than ever that the Southern people have a publication like the MANUFACTURERS RECORD, and that they take it and read it.

I want the extra copy for a friend in Boston. She is a lady who had rendered the South a service of transcendent importance and value, for it was she who first discovered that it is the South's low wage scale that has been the South's one very greatest drawback, and she fully realized the full significance of the South's low wage scale, as it has affected the South financially, educationally, socially, racially, and in the retardation of its development generally and that on account of its low wage scale, the South has been working for the balance of the country and the world for half price.

The value of this discovery to the South and the constructive policy that she offered to the South will, when adopted by the South, be reckoned not in millions, but in billions of dollars.

She is a lady born in the South who has lived much of her life in the North, but has never lost her love for the South.

# THE IRON AND STEEL SITUATION

## Coal Market Stagnant on Eve of Strike—No Uneasiness in Steel.

Pittsburgh, March 25—[Special.]—A week before the most widely heralded mining suspension in the history of the bituminous coal industry the coal market has become still more stagnant and prices have declined farther. Sewickley vein coal is freely offered at \$1.25 while some of the best by-product and gas coals of the Connellsville region can be had readily at \$1.75 or less, all these being open shop mined, and Pittsburgh coal, ostensibly union but probably mined at special wage rates, has been available at as low as \$1.80. Cost at the expiring United Mine Workers' scale has been commonly regarded as being about \$2.10.

The steel mills exhibit no uneasiness as to their ability to make all desired shipments of steel after April 1. The Carnegie Steel Company, which has had a heavy business lately, is preparing to blow in six additional blast furnaces by April 1, giving it 35 operating of its total 59. Some steel buyers, however, have evidently been anticipating part of their April and May requirements in steel, being doubtful whether the steel industry would be able to function properly, and in some quarters doubt is entertained, on this account, whether steel demand will continue of full volume in the next few weeks.

The rate of steel ingot production is between 29,000,000 and 30,000,000 tons a year, as it has been for the last four weeks, following the rapid recovery in operations in January and the fore part of February. In one well informed quarter a prediction is made that production will be at above 35,000,000 ton rate by June 1, but such predictions are by no means general. In many quarters it will be satisfactory if the present gain is fully held, with moderate improvement from time to time.

The long decline in steel prices ended two or three weeks ago. No one knows how many times prices may decline or advance in future, but the one decline has terminated. The steel market is engaged in firming up at present, and definite and important advances in open market prices may be recorded shortly. Concessions in bars, shapes and plates below .140c. seem to have disappeared entirely in the past two or three weeks, while the smaller orders, down to carload lots, have been going in most cases this week at 1.45c. to 1.50c., so that this important branch of the finished steel market is decidedly firmer. While the three products have been selling at approximately identical prices lately it is probable that shapes will move ahead of bars. Plates will necessarily remain a drag on the market, as there is a much larger excess of capacity than in any other branch of the finished steel trade.

The Wheeling Steel Products Company has announced that on April 1 its prices on black, galvanized and automobile sheets will be advanced \$3 a ton. Similar announcements are expected from other independent mills, partly for the purpose of encouraging buyers to commit themselves at present prices, 3.00c. for black and 4.00c. for galvanized. Deliveries on old orders, taken at below these prices, do not seem to have been entirely completed.

As a result of heavy buying of Connellsville furnace coke last week for spot and prompt shipment at \$3.25 to \$3.50 the market has been firm this week at \$3.50 minimum. Demand has been light and a few hundred additional ovens are scheduled for blowing in, probably on account of increasing difficulty in selling coal. Foundry coke remains in good demand with prices unchanged at \$4.25 to \$4.75, depending on brand.

Pig iron prices are now being firmly maintained, at \$19.50 for Bessemer, \$18 for basic and \$19 for foundry, f.o.b. valley

furnaces, with \$1.96 freight to Pittsburgh. Demand for merchant iron seems to be increasing slowly, shipping instructions on old orders being better while there is a little more current buying.

Nothing new has developed in Lake Superior iron ore, and the trade expectation continues to be that the 1922 season prices will be about \$1 a ton below those of 1921, f.o.b. Lake Erie docks.

## Stronger Tone at Birmingham.

Birmingham, Ala., March 27—[Special.]—A stronger tone is noted in the Southern pig iron market as sales are being made for delivery during the second quarter of the year and inquiries are coming in as to the position of furnace interests on the matter of production, price and ability to make deliveries. There has been little actual strengthening in the prices of pig iron, though some companies are maintaining that their product commands a better price than the base. A number of small-lot sales of pig iron are still being made for immediate delivery.

The production of iron in the Birmingham district has been materially improved and the schedule is for one of the blast furnaces of the Sloss-Sheffield Steel & Iron Company to be in position shortly to start up one of the North Birmingham iron-makers. That Company has less than 35,000 tons of pig iron on yards, against double that amount several months since. The Tennessee Coal, Iron & Railroad Company blew in three furnaces in the last four weeks, all on basic iron. The demands for steel-making iron by this company have been increasing as the open hearth furnaces at the big steel plant at Ensley, part of Birmingham, continue an unprecedented, almost, record of steel ingot and billet making.

The pig iron quotations in the Birmingham district are still on the \$15 to \$15.50 per ton level, No. 2 foundry, 1.75 to 2.25 per cent silicon content, though some sales have been heard of at \$16 per ton, No. 2 foundry. In this territory alone there is a strong consumption of soil pipe and fittings, while the radiator plant, stove works and other industries using pig iron in their daily operation are not in the least pessimistic as to the future. Shipments of cast iron pipe are showing a little speeding up.

Steel mills operations continue at a very happy pace, demand for several shapes in steel, rail, steel wire and wire products and bar being better now than for a long time. The rail mill of the Tennessee Coal, Iron & Railroad Company's big steel plant at Ensley has been operating at full speed for several weeks and orders in hand and in sight will warrant this condition for a long time to come. The export rail business has required healthy movements of the product.

Demand for coal and coke is on the increase. The Sloss-Sheffield Steel & Iron Company by reason of steady operation of its by-product coke oven plant at North Birmingham has a very large amount of coke on hand.

The scrap iron and steel trade is still showing improvement.

### PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$15.00 to \$15.50; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$15.50 to \$16.00; iron of 2.75 to 3.25 per cent silicon, \$16.00 to \$16.50; iron of 3.25 to 3.75 per cent silicon, \$16.50 to \$17.00; iron of 3.75 to 4.25 per cent silicon, \$17.00 to \$18.00; charcoal iron f. o. b. furnaces, \$30.00 to \$32.00.

### OLD MATERIAL.

Old steel axles .....	\$14.00 to \$15.00
Old iron axles .....	16.00 to 17.00
Old steel rails .....	11.50 to 12.00
Heavy melting steel .....	11.50 to 12.00
No. 1 R. R. wrought .....	11.50 to 12.00
No. 1 cast .....	14.00 to 15.00
Stove plate .....	13.50 to 14.00
Old car wheels .....	13.50 to 14.00
Old tramcar wheels .....	12.00 to 12.50
Machine shop turnings .....	3.50 to 5.00
Cast iron borings .....	3.50 to 5.00
Cast iron borings, (chem.) .....	13.40



# GOOD ROADS AND STREETS

## Detailed Report by Counties of Tennessee Road Bonds.

Upwards of \$35,000,000 has been voted in bonds for road building purposes in Tennessee by 70 counties, and 13 others have authorized issues, as reported in these columns last week. Plans are being discussed for voting and selling more bonds for the same purpose.

The total county issues, indicating the amount of bonds and the purpose for which issued are as follows:

County.	Amount.	Federal and State Aid.	County Roads.
Anderson	\$405,000	\$85,000	\$320,000
Bedford	200,000	200,000	.....
Benton	150,000	14,000	136,000
Bledsoe	165,000	50,000	115,000
Blount	1,230,000	.....	1,230,000
Bradley	459,000	.....	459,000
Campbell	790,000	100,000	690,000
Cannon	60,000	.....	60,000
Carroll	200,000	200,000	.....
Carter	837,000	317,000	520,000
Chester	90,000	90,000	.....
Claiborne	600,000	.....	600,000
Clay	95,000	95,000	.....
Coke	300,000	100,000	200,000
Crockett	137,500	60,000	77,500
Cumberland	240,000	.....	240,000
Decatur	125,000	.....	125,000
DeKalb	125,000	.....	125,000
Dickson	378,000	75,000	303,000
Dyer	900,000	150,000	750,000
Fentress	150,000	150,000	.....
Franklin	390,000	40,000	350,000
Giles	500,000	150,000	350,000
Grainger	535,000	35,000	500,000
Greene	1,290,000	.....	1,290,000
Grundy	200,000	.....	200,000
Hamblen	531,000	50,000	481,000
Hamilton	2,395,000	200,000	2,195,000
Hancock	100,000	.....	100,000
Hardin	680,000	150,000	510,000
Hawkins	227,000	225,000	.....
Henry	465,000	50,000	415,000
Hickman	350,000	.....	350,000
Humphreys	150,000	.....	150,000
Jackson	828,000	185,000	643,000
Jefferson	65,000	.....	65,000
Johnson	625,000	150,000	475,000
Knox	100,000	100,000	.....
Lauderdale	350,000	40,000	310,000
Lawrence	150,000	75,000	75,000
Lewis	164,000	100,000	64,000
Lincoln	300,000	.....	300,000
Loudon	475,000	175,000	300,000
McMinn	900,000	300,000	600,000
Madison	255,000	.....	255,000
Marion	75,000	75,000	.....
Maury	100,000	.....	100,000
Meliss	669,500	.....	669,500
Monroe	652,000	.....	652,000
Montgomery	600,000	.....	600,000
Morgan	300,000	300,000	.....
Overton	48,500	.....	48,500
Pickett	250,000	.....	250,000
Putnam	250,000	.....	250,000
Rhea	225,000	225,000	.....
Roane	577,000	50,000	527,000
Robertson	365,000	200,000	165,000
Rutherford	300,000	.....	300,000
Scott	50,000	.....	50,000
Sequatchie	485,000	.....	485,000
Sevier	400,000	.....	400,000
Smith	767,600	35,000	732,600
Sullivan	160,000	.....	160,000
Sumner	155,000	.....	155,000
Tipton	200,000	.....	200,000
Unicoi	230,000	.....	230,000
Union	810,000	60,000	750,000
Washington	125,000	125,000	.....
Weakley	246,000	.....	246,000
White	.....	.....	.....

## Orange County Texas Votes \$700,000 Bonds.

Orange, Tex., March 25—[Special.]—Orange county by a big majority has voted \$700,000 bonds for construction of good roads. Concerning this bond issue, Mayor W. E. Lea says:—"With good roads and deep water for Orange, there is indeed every reason for gratification. The Sabine-Neches River Bridge will now be built, as will a concrete road to our oil field, in addition to other needed roads in the county. Three hundred miles of hard-surfaced roads from Morgan City, La. to Houston and Galveston are now assured, for all of the intervening counties have voted the necessary money."

## To Advertise for Paving Bids.

Tampa, Fla., March 25—[Special.]—Bids on the construction of roads provided under the proposed \$3,000,000 bond issue will be advertised immediately and opened on April 24, according to an announcement by J. J. Hedrick, Jr., county engineer. The work embraces 160 miles of road.

Six standard types of paving are to be included. Bids will be accepted upon all or a part of the work. They are subject, however, to the voting of the bond issue, the election to be held some time in June. The road will vary in width from nine to 24 feet. A new bridge over the Hillsborough River will also be included.

Only standard materials will be used in the construction. The mileage of the various sections follow:—Midway road, 6.65; Wimauma road, 2.35; Plant City-Lake Thonotosassa 10.91; Lake Thonotosassa-Seffner, 4.78; Plant City-Picnic, 17.11; Sulphur Springs-Harney, 6.75; Hopewell-Tampa, 14.74; Lithia, 11.16; Riverview, 12.23; Bayshore, 28.02; Lake Magdalene, 6.06; Citrus Park, 15.13; Waters Avenue, 2.02; Armenia Avenue, 3.56; West Tampa boulevard, 75; and Interbay peninsula, 14.74.

## Labor Costs Favorable to Road Building.

Labor costs on Federal aid road building projects under construction this year indicate that there will be no drawback along this line during the coming season, according to the Bureau of Public Roads. The price for common labor ranges around 25 to 30 cents an hour in the majority of states, being somewhat lower in the South and going up to nearly 50 cents on the Pacific Coast. The prices for teams were in a great many instances as low as the 1914 level, but it is likely there will be some increases in this line when the farming season begins, says the Bureau, as teams are always cheaper during the winter months.

## Good Roads Show and Convention.

The tenth annual convention of the United States Good Roads Association will be held on April 24-29 at Phoenix, Ariz. At the same time the Bankhead National Highway Association will meet and the United States Good Roads Show will be held. A leading feature of the Convention will be the planning of a campaign for a Congressional bill making \$100,000,000 available annually for the next five years for building good roads. A complete line of road machinery and materials, trucks and tractors, and demonstrations in the latest method of road building will be a part of the Good Roads Show.

## Notes on Good Roads Construction.

Bell County, Texas, will shortly award contracts for construction of 15 miles of highway to cost \$250,000, according to S. J. Treadway of Temple, who is the engineer in charge.

McCall & Moore Engineering Co., of Waco, Tex., and Burks & Hart, of Comanche, have been awarded the contract for construction of roads in Coleman county, Tex., involving the expenditure of approximately \$250,000. Twenty-two bids were submitted for the work.

Tom Bodine, county clerk, Oklahoma City, Okla., advises the MANUFACTURERS RECORD of contracts recently let as follows:—Section 17, Green Construction Co., Southwest Bank Bldg., for 7-inch concrete construction, \$74,871; Section 19, M. A. Swatek & Co., 412 Security Bldg., 7-inch plain concrete, \$40,957; Section 25, Continental Asphalt & Petroleum Co., rock asphalt, \$50,554.

## Motor Transport Business Will Need 4,000 Trained Men—A Constantly Widening Field.

"In the next ten years 4000 specially trained men will be needed for service in the highway transport business," declared F. W. Fenn, Secretary, National Motor Truck Committee, National Automobile Chamber of Commerce, in an address recently before the students and faculty of Massachusetts Institute of Technology. Mr. Fenn said in part:

"The whole field of the highway transport is practically virgin. It welcomes the entrance of trained men. Men of the very highest professional ability are daily turning to it; only recently a former governor entered the field.

"The success of the experiment in allocating to motor trucks the interchange of freight among the eight railroads entering Cincinnati, which has resulted in eliminating 300,000 switching cuts, is going to mean its duplication in every major terminal center.

"It is fairly certain that the next great development in this country in transportation will be therefore a national delivery service for picking up traffic at the point of origin and making delivery at the store door of the consignee. The motor truck offers the best solution of this problem in the opinion of many railroad officials. Only this past month the transportation of freight between the New Jersey rail terminals of the Erie Railroad and New York City has been effected by means of trucks.

"It is now an established fact that motor truck operation can be substituted for short branch-line railway operation, trap car service, suburban railroad and terminal distribution. The New York, New Haven and Hartford Railroad, the Baltimore & Ohio and the Northern Pacific, are already using trucks, with flanged wheels on short branch-line operations."

Mr. Fenn told how the committee on the development of the motor bus of the New England Street Railway Club had recommended that in many instances it would be preferable to install motor bus service instead of trackless trolley equipment. This was felt by the speaker to be the logical development in urban passenger transportation. There are now 20,000 motor buses servicing the congested and undeveloped areas of our principal cities.

It was also pointed out that approximately seventy-five per cent of the hauling in the Texas and Oklahoma oil fields is carried on by means of specially designed truck and trailer combinations. Mr. Fenn continued:

"There is no question that the motor truck is a very important part of the operator's equipment in the production of petroleum. The impressive sizes to which the truck fleets of some of the largest oil companies in the world have grown during the past few years is a striking confirmation of this assumption.

"There is every reason to believe also that in the transportation of coal and other mine products from the mouth of mines there will be from now on a marked tendency to utilize power trucks. Just how extensive this movement will be may perhaps be judged from the fact that the products of approximately 3200 mines are being carried by either motor truck or wagons at present.

"Just a short time ago the opinion was ventured by several prominent lumbermen that within the next three years all mules and oxen now in use in southern lumbering will be replaced by tractors and trucks. Various methods of transportation have been employed from time to time in the handling of our forest products; but in the last few years lumbermen in general have displayed a keenness for inquiry and observation that has resulted in the development and use of many new devices, especially trucks, intended to save both time and money for lumber producers."

## \$2,000,000 County Road Bonds Sold.

Birmingham, Ala., March 27—[Special.]—Marx & Co., Birmingham, and R. M. Grant & Co., of Chicago, are the successful bidders for the \$2,000,000 county road bonds offered last week. A premium of \$23,550 at par and accrued interest was offered. Half of the bonds will be used in the construction of roads already outlined, the remainder is to liquidate a temporary loan.

# RAILROADS

## Income Southern Railway Lines—1921.

Income statements covering the year 1921 have been issued for various properties constituting the Southern Railway Company's System as follows:

Southern Railway Co.—Gross operating revenues, \$128,715,150.01; total operating expenses, \$105,829,006.96; net revenue from operation, \$22,886,143.05; railway operating income after taxes, rentals and uncollectible railway revenue, \$13,971,781.91; total gross income, \$18,210,975.33; total available income after deductions, \$14,033,172.83; balance of income over charges, \$2,026,622.77.

Cincinnati, New Orleans & Texas Pacific Railway Co.—Gross operating revenues, \$17,170,445.81; total operating expenses, \$14,789,237.23; net revenue from operation, \$2,381,208.58; railway operating income after taxes, rentals and uncollectible railway revenue, \$1,942,444.13; total gross income, \$2,219,313.50; total available income after deductions, \$857,180.55; balance of income over charges, \$703,535.30.

Alabama Great Southern Railroad Co.—Gross operating revenues, \$9,542,225.03; total operating expenses, \$8,196,319.70; net revenue from operation, \$1,345,905.33; railway operating income after taxes, rentals and uncollectible railway revenue, \$1,020,786.46; total gross income, \$1,448,483.42; total available income after deductions, \$1,045,876.95; balance of income over charges, \$535,089.95.

New Orleans & Northeastern Railroad Co.—Gross operating revenues, \$6,320,585.50; total operating expenses, \$5,854,465.65; net revenue from operation, \$475,119.85; railway operating income after taxes, rentals and uncollectible railway revenue, \$259,590.70 deficit; total gross income, (other income having been \$661,483.79) \$401,893.09; total available income after deductions, \$298,759.23; deficit for the year after charges, \$106,878.27.

## Railroad Financing.

The Jacksonville Terminal Company, Jacksonville, Fla., has been authorized by the Interstate Commerce Commission to issue \$3,100,000 of refunding and extension mortgage bonds consisting of \$2,000,000 Series A and \$1,100,000 Series B, to be sold at not less than 95. They are guaranteed, it is stated, by the Atlantic Coast Line, the Seaboard Air Line and the Southern Railway. J. P. Morgan & Co., of New York, have, it is also stated, bought the \$1,100,000 issue bearing 6 per cent interest and maturing in 1967.

The application of the Norfolk & Western Railway to issue \$666,000 of 4 per cent first consolidated mortgage bonds to reimburse its treasury for capital expenditures was approved, the bonds to be sold at not less than 90.

Missouri Pacific Railroad has sold to Kuhn, Loeb & Co., of New York, \$18,000,000 of 6 per cent first and refunding mortgage bonds Series D, maturing February 1, 1949. Proceeds are to be used to retire \$13,641,000 of bonds maturing next January and also to reimburse the company's treasury for capital expenditures.

## Freight Car Loadings Continue Increasing.

During the week ended March 11, loadings of revenue freight amounted to 829,128 cars, an increase of 25,873 cars as compared with the preceding week, according to figures compiled by the Car Service Division of the American Railway Association. As compared with the same week one year ago, the increase amounted to 128,688 cars and the total was even 9799 cars more than the corresponding week of 1920. In anticipation of a strike of coal miners, coal loadings continued to increase, 7929 more cars being loaded than in the previous week.

### Railroad to Resume Operations.

A Government loan of \$3,500,000 to the Missouri & North Arkansas Railroad has been approved by the Interstate Commerce Commission and Festus J. Wade, of St. Louis, representing security holders of the line, is quoted as saying it is proposed to resume operation about April 15, after a suspension of all trains since July 31 last. It will be remembered that the suspension of operations was in consequence of a court order after the receiver of the road had shown that it was losing on an average of about \$90,000 a month. The financial difficulties were in large part a result of sabotage practiced by strike sympathizers following a reduction of wages in February 1921.

It is stated that the loan to the road is conditioned so that it will be a first lien upon the property. Of the amount, \$3,000,000 is to take care of maturing obligations and \$500,000 for additions and betterments. The Mercantile Trust Co., of St. Louis, of which Mr. Wade is president, is to supervise and regulate disbursements.

### New Equipment.

Tennessee Coal, Iron & Railroad Co. has ordered 150 ore dump cars from the Chickasaw Shipbuilding Co.

Louisville & Nashville Railroad is reported in the market for 6 passenger cars, 4 combination passenger and smoking cars, 5 combination passenger and baggage cars, 5 combination baggage and horse cars, and 5 baggage cars. The Florida East Coast Railway is reported in the market for 10 baggage cars.

Kentucky & Tennessee Railroad has ordered a Mikado type locomotive from the American Locomotive Co.

Norfolk & Western Railway has ordered 2000 coal cars of 70 tons capacity from the Pressed Steel Car Co. and 1000 each from the American Car & Foundry Co. and the Standard Steel Car Co.

### Texas State Railroad In Good Shape.

Successful results of operation of the Texas State Railroad, 32 miles long from Palestine to Rusk, Tex., since it has been operated by the Southern Pacific Railway beginning several months ago, is noted by the Board of Managers in their report to the Governor of Texas. It is remarked that when the Board took over the line, there was a deficit of from \$5000 to \$8000 a month and trains could not be run safely. Now the road is in substantial shape and is being relaid with 80 pound rails. Passenger trains with Pullman service are being run. There is also an adequate freight service.

### To Build a Railroad in Mexico.

Monterey, Mex., March 2—[Special.]—The heirs of Richard Honey, who left several million dollars in mining and other property in Mexico, propose to build the Pachuca & Tampico Railroad for which he received a franchise in 1912. This concession was lately modified by the Mexican Government and the railroad company is to complete the survey within nine months. Then construction must begin within two months after plans are approved for the first 60 kilometers of line, which must be finished within a year. After that 70 kilometers a year must be built, the whole line to be constructed within four years.

### Sale Adjourned to April 1.

There were no bids made for the Tennessee, Alabama & Georgia Railway when it was offered for sale at Chattanooga, Tenn., on May 18 for the sixth time. The upset price is \$200,000. D. L. Grayson, special commissioner, declared the sale adjourned April 1.

### Railroad From Muscle Shoals to Pensacola.

Plans are under way for the construction of a railroad about 355 miles long from Muscle Shoals, Ala., via Birmingham to Pensacola, Fla. Notice has been published at Pensacola, of the intention to apply for incorporation of the Muscle Shoals, Birmingham & Pensacola Railway Co., capital stock, \$2,500,000 with John T. Steele, of Buffalo, N. Y., holding 2498 out of 2500 shares. Other directors are Hubert C. Mandeville, of Elmira, N. Y., and Harold B. Thorne, of Montclair, N. J. and New York City, who hold one share each. Mr. Steele is president and treasurer, Mr. Mandeville is vice president and Roscoe C. Greenaway is secretary.

This is plainly an enterprise designed to complete the Gulf, Florida & Alabama Railway, now 142½ miles long from Pensacola, Fla., to Kimbrough, Ala. Mr. Steele is receiver of this road and Mr. Greenaway is its general manager. Mr. Thorne is a member of the bondholders protective committee of which James F. McNamara, 60 Wall St., New York City, is secretary.

The Gulf, Florida & Alabama Railway Co. was incorporated in 1911 to build from Pensacola to Jasper, Ala., about 300 miles, but it was placed in a receivership in 1917. The nucleus of the line was the railroad of the Southern States Lumber Co. from Cantonment, Fla., to Local, Ala., and this was gradually extended in one direction to Pensacola and in the other to Kimbrough. The promoter and president of the road was Roy C. Megargel, of New York. When the war came the road experienced financial difficulties and the receivership was the result.

The prospect of rehabilitating the Gulf, Florida & Alabama Railway is largely due to the action of business men of Pensacola, who through William Fisher, their attorney, bought in the property when it was put up for sale, the local creditors' committee being Paul P. Stewart, J. H. McCormack, R. M. Cary, Max L. Bear and J. G. Holtzelaw. The road has valuable terminals at Pensacola, including an electrically operated coal pier and a large warehouse on water 35 feet deep.

### Possible Development of New Coal Field on Lower Guest River, Va.

About 25 square miles of the coal-bearing portion of Wise County, Va., that have heretofore been considered inaccessible for mining and transporting its coal will be opened for immediate development by the extension of the Interstate Railroad from Norton down Guest River to a junction with the Carolina, Clinchfield and Ohio Railway, on Clinch River. The region thus opened is drained by the lower part of Guest River, the stretch from Coeburn to the mouth of the river. The chief natural resource of this river basin, according to the United States Geological Survey, is coal, but in the number, quality and extent of its coal beds it ranks below the many other well-known coal basins in Wise County. The part of the basin that offers the most encouragement for commercial development lies immediately southeast of Coeburn and includes the drainage basin of Craborchard Branch, a tributary of Guest River. This tributary basin, which includes about 4 square miles, contains three beds of coal 3½ feet or more thick. The ridges southeast of the Craborchard basin as far as Clinch River have been lowered so far by erosion that only the lowest of the three coal beds still remain. On the west side of Guest River even this bed has been generally removed, and consequently little or no coal of present commercial value has been found there.



# LUMBER AND BUILDING MATERIALS

## Southern Pine Orders and Shipments Increase.

New Orleans, La., March 25—[Special.]—Southern pine mills report having received orders during the week ended March 17 for 3630 cars containing 77,518,650 feet, or an average of 591,745 feet per mill compared with the average order of 506,719 feet for the preceding week. Shipments likewise increased, totalling 3543 cars containing 75,660,765 feet, averaging 577,563 feet per mill whereas the average for the preceding week was 525,136 feet.

The orders received during the week of March 17 were the highest since the week of October 28 when an average of 624,314 feet per mill was reported. Shipments have been steadily, although slowly increasing since last fall, the low figure being recorded December 30 when average shipments of 349,816 feet per mill were reported. Production is maintaining an approximate level, being 72,611,951 feet for the week of March 17.

Shipments were 4.20 per cent above production. Orders were 6.76 per cent above production, and 2.46 per cent above shipments for the week. The increase in "orders on hand" during the week amounted to .83 per cent.

The summary report for the week is as follows:—

	Cars.	Feet.
Orders on hand beginning of week .....	10,479	223,779,045
Orders received during week .....	3,630	77,518,650
Total .....	14,109	301,297,695
Shipments during week .....	3,543	75,660,765
Orders on hand end of week .....	10,566	225,636,930

## Table of Wages in Southern Pine Mills.

The Southern Pine Association of New Orleans, La., has compiled a table showing the scale of wages paid labor in the woods and plant departments as of January, 1921 and January, 1922, from information forwarded by subscribers in response to a recent questionnaire.

The average hourly and monthly wage obtained by labor in the operation of a typical Southern pine mill is indicated, also the percentage decrease since January last year. A working day of 10 hours and a month of 25 days constitute the basis of these calculations. The averages were obtained for the individual positions according to the number of men employed in each position and the rates. The table follows:

	Average Hourly Wage January, 1922.	Average Hourly Wage January, 1921.	Percentage Decrease Since January, 1921.
<b>WOODS DEPARTMENT.</b>			
Steel Gang and Railroad Construction Crews .....	\$0.212	.283	25.1
General Woods Crew .....	0.387	.521	25.7
Steam Loader Crew .....	0.318	.387	17.8
Combination Skidder and Loader Crew .....	0.269	.325	17.2
Rehaul Skidder Crew .....	0.253	.362	30.1
Wagon and Team Logging .....	0.230	.300	23.3
Train Crew, (Main Line or Woods) .....	0.304	.387	21.4
Woods Machine Shop and Miscellaneous Crews .....	0.310	.380	18.4
<b>PLANT DEPARTMENT.</b>			
Pond Crew .....	0.234	.316	25.9
Saw Mill Crew .....	0.334	.410	18.5
Sorter Crew .....	0.213	.295	27.8
Yards, Sheds and Shipping Crews .....	0.220	.300	26.7
Timber Dock Crew .....	0.236	.348	32.2
Dry Kiln and Stacker Crew .....	0.211	.292	27.7
Planing Mill Crew .....	0.254	.331	23.3
Carpenter Gang .....	0.297	.365	18.6
Machine Shop Crew .....	0.413	.478	13.6
Barn Crew .....	0.222	.288	22.9
Power House Crew .....	0.319	.381	16.3
Miscellaneous .....	0.227	.288	21.2
<b>SUMMARY.</b>			
General Average Woods Department .....	0.257	.329	21.9
Average Common Labor—Woods Department .....	0.18	.270	32.2
General Average Plant Department .....	0.269	.349	22.9
Average Common Labor—Plant Department .....	0.183	.270	32.2
General Average Entire Operation .....	0.265	.341	22.3
Average Common Labor, Entire Operation .....	0.187	.264	29.2

## Cost of Southern Pine Production.

New Orleans, La., March 27—[Special.]—Figures have recently been compiled showing the aggregated cost of production of Southern pine lumber for the year 1921. An average of 26 mills supplied this information and an average of 25 mills submitted data for 1920 figures, all of these being large mills and representative of Southern pine operations. The total cost of production for the 26 mills in 1921 was \$23.60 per 1000 feet, compared with \$33.06 in 1920, a decrease of \$9.46 per 1000 feet or 28.6 per cent.

The average price per 1000 feet for the year 1920 obtained by 103 mills was \$46.51, while the average for 1921 obtained by 94 mills was \$23.14 per 1000 feet, or a decrease of 50.2 per cent. The total cost of production reported by an average of 112 mills for 1920 was \$31.20, while for last year for an average of 107 mills the cost was \$22.44 or 28.1 per cent less. The decrease in price as between the averages for the two years was 44 per cent greater than the decrease in cost.

For the year 1920 labor was 45.9 per cent of the total cost, and for 1921, 36.9 per cent of the total cost.

The table showing the aggregated cost of production per 1000 feet follows:

	26 mills 1921.	25 mills 1920.
Logging and Milling—Labor .....	\$8.71	\$15.18
Logging and Milling—Expense .....	3.87	5.93
Total Manufacturing Cost .....	12.58	21.11
Officers and Office Salaries .....	.69	.88
General Expense .....	2.15	2.59
Selling Expense .....	1.08	1.00
Total General Cost .....	16.50	25.58
Depreciation .....	1.33	1.45
Total Conversion Cost .....	17.83	27.03
Stumpage .....	5.77	6.03
TOTAL COST .....	\$23.60	\$33.06

## Reforestation Proceeding in Virginia.

The Virginia state forest nursery has received applications for 11,323 trees up to March 1, according to the Virginia State Forester. The trees are grown on the grounds of the University of Virginia for the purpose of encouraging the reforestation of otherwise idle lands.

The first shipments were made in the spring of 1921, when 7920 seedlings and transplants were shipped to applicants in 22 Virginia counties. While the trees are of the sizes and species considered best for forest planting, and are raised for that purpose, a number of the applications for them have been for use in decorating school grounds. For this use there is no charge except the cost of shipping, while for use on private land a small charge is made.

The trees for distribution this spring will be lifted and packed before the spring growth begins, and they should be planted as early as possible, says the bulletin. Something over 30,000 trees of the following species are available from the State Forester: Scotch Pine, white pine, loblolly pine, cypress, Northern red oak, black locust and catalpa.

According to a recent statement issued by the Mexican Government there were 180 oil wells brought in during the year 1921, with an average daily production of 450,744.40 cubic meters, equivalent to 2,835,113 barrels. The mean daily production per well is 15,751 barrels. The average depth of the wells was 1987 feet.

The Amatlan and Zacamixtle fields, which have been reported at various times as exhausted, broke the record in 1921 so far as new wells are concerned, as 86 of the total number of 180 wells were produced in those regions.

## MECHANICAL

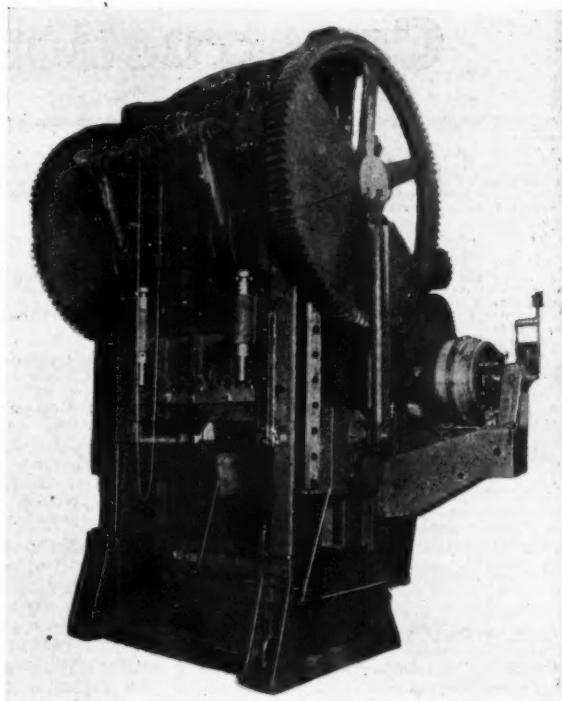
### Press for Drawing Steel Axle Housings.

A very large double crank toggle drawing press recently built for the Crosby Company, of Buffalo, N. Y., by the E. W. Bliss Company, Brooklyn, N. Y., embodies sundry features of more than ordinary interest. The rapid strides made in the development of steel stampings to replace castings, especially in the automotive industry, has resulted in the design and construction of power presses of sizes and capacities far beyond the dreams of a few years ago, but the press here illustrated is particularly large and efficient.

This press was built for the purpose of drawing pressed steel axle housings for automobile trucks. These housings are drawn in two sections and then welded together, the material from which they are made being steel  $\frac{3}{8}$  inch thick. The press is of tie rod construction, twin driven and triple geared, the ratio of gearing being 85:1. The entire train of gearing is of steel with machine cut teeth. Power is transmitted from the main driving gears to the outside slide of the blank holder through a series of toggles, and a dwell of 120 degrees is obtained. The number of toggles and connections used is said to be the lowest possible to obtain efficient results. In order to maintain, in wide presses, this simple and effective construction and at the same time avoid any torsional strain, power is transmitted to the outside slide from both ends of the press. This method is also followed in connection with the crankshaft which operates the inner slide, this being twin driven by means of a driving gear on either end. Minimum power consumption and minimum wear are characteristics of the press; all connection pins are hardened and ground.

The adjustment of the inner slide or plunger is made by a 15 horsepower motor mounted on the front of the crown. The machine itself is driven by a 100 horsepower motor and is directed by a powerful hand actuated friction clutch of the double grip type, by means of which the operator at all times has the moving parts under control.

Some of the principal dimensions of the machine shown are: Distance from bed to inner slide, stroke down and



THE BIG PRESS IN PLACE FOR SERVICE.

adjustment up, 59 inches; distance from bed to outer slide, stroke down and adjustment up, 56 inches. Stroke of inner slide 28 inches; of outer slide, 20 inches. Area of bed, 60 by 116 inches. Area of face of plunger, 36 by 86 inches. Weight, about 600,000 pounds, or 300 tons.

### Huge Crane for Government Armor Plate Plant.

One of the most interesting of recent engineering accomplishments is the completion of a huge crane which the Cleveland Crane & Engineering Company, of Wickliffe, O., undertook to build for the United States Government Armor Plate Plant at Charleston, W. Va.

A picture of the completed crane mechanism is reproduced herewith.



OPERATING MECHANISM OF THE BIG CRANE

When it is realized that the runway for this crane is 165 feet above the ground,—a height equal to that of a large office building,—and the pit is 100 feet below the floor level, the unusual conditions which had to be met become apparent.

The crane has a span of 104 feet, a capacity of 75 tons, and is driven by two 200 horsepower motors. The hoisting speed is 50 feet per minute, fully loaded, and the lowering speed is 100 feet per minute under similar conditions,—excellent speeds for a crane of such large dimensions.

Another interesting feature of this crane of more than ordinary interest to engineers is its ability to stop a full load descending at the rate of 100 feet per minute in the unusually short space of one foot.

The crane is of the double bridge type and is pulpit operated.

# Construction Department

## EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

## DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

## Bridges, Culverts and Viaducts.

Ala., Eufaula—State Highway Comsn., Montgomery, Ala., plans building bridge over Chattahoochee River; concrete and steel.

Ala., Montgomery—State Highway Comsn., will construct bridges over Cahaba and Warrior Rivers, etc.; 150,000 ft. creosoted lumber and about 9000 lin. ft. creosoted piling; bids opened Mch. 21, 22, 28 and 29. (See Mch. Wanted—Creosoted Products.)

Fla., Pensacola—Escambia County Comms. will build 5 reinforced concrete bridges; 2 box culverts; grading approaches between Pensacola and Flomaton; bids until Apr. 18; Winston E. Wheat, County Engr. (See Machinery Wanted—Bridge Construction.)

Fla., Sulphur Springs—Hillsborough County Comms., Tampa, Fla., will build reinforced concrete bridge over Hillsborough river; 160 ml. roads; \$3,000,000; bids until April 24; Charles T. Frend, Chrmn. (See Machinery Wanted—Bridge Construction.)

Ga., Tifton—State Highway Dept., Peachtree Bldg., Atlanta, Ga., will construct 4 bridges; total length 489 ft.; Georgia Standard concrete pile; bids probably about May 1; F. M. Hill, Div. Engr., Tifton, Ga. Lately noted. (See Mch. Wanted—Bridge Construction.)

Mo., Bethany—State Highway Dept., Jefferson City, Mo., will build bridges on state road from New Hampton eastward and westward; 50-ft. and 55-ft. pony truss spans; two 20-ft. reinforced concrete slab spans; cost \$26,430.35; Harrison County, Federal Aid Project No. 50; bids until Mch. 30; A. C. Lingley, Div. Engr., Ballinger Bldg., St. Joseph, Mo. Lately noted. (See Bridge Construction.)

Mo., Carrollton—Noborne & Land Drainage Dist. Co. will build 57 bridges; bids until Mch. 30; Elliott & Harman Engineering Co., Engr., Peoria, Ill. (See Mch. Wanted—Bridge Construction.)

Mo., Chillicothe—State Highway Dept., Jefferson City, Mo., let contract to Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa., to build 2 bridges on State road from Chillicothe southward; Livingston County State Aid Project No. 20.34A; 3 20-ft. I beam spans, 18-ft. roadway; 15 20-ft. I beam spans, 18-ft. roadway; A. C. Lingley, Div. Engr., St. Joseph, Mo.; A. W. Graham, State Engr., Jefferson City. (Lately noted inviting bids.)

Mo., Fulton—City let contract to Riley & Bailey, St. Louis, Mo., at \$11,283.57, to build bridge and grade  $\frac{1}{2}$  mi. road approach; W. P. Divers, Supvg. Engr., Fulton, Mo.

Mo., Hermitage—State Highway Dept., Jefferson City, Mo., will build 24-ft. reinforced concrete bridge on state road from Wheatland eastward and westward; Hickory County, Federal Aid Project No. 98; bids until April 4; S. M. Rudder, Div. Engr., Sedalia,

Mo. Lately noted. (See Mch. Wanted—Bridge Construction.)

N. C., Graham—North Carolina State Highway Comsn., Raleigh, N. C., will build bridge over Haw River near Haw River station on route No. 10 with  $\frac{1}{4}$  mi. approach hard surface road; Alamance County Project No. 503; bids latter part of April. (See Mch. Wanted—Bridge Construction.)

N. C., Halifax—Halifax County will build bridge; will let contract in April. Address County Comms.

Tenn., Johnson City—City, T. H. McNeil, Recorder, will construct 3 concrete bridges; bids until Apr. 12. (See Mch. Wanted—Bridge Construction.)

Tex., Anderson—J. J. Smith and J. E. McGee, Starr, Tex., have under construction steel bridge over Savannah River between Anderson and Hart counties; 1020 ft. long; cost \$50,000.

Tex., Bastrop—Bastrop County, J. B. Price, County Judge, will construct 1500-ft. bridge over Colorado River; steel span; concrete approaches; cost \$160,000; R. E. Schiller, Res. Engr.; bids in near future. (Lately noted.)

Tex., Dickinson—Galveston County, John M. Murch, Auditor, Galveston, Tex., will build reinforced concrete pile trestle bridge; thirteen 20-ft. spans, 30-ft. center span; etc.; bids until April 17. Lately noted. (See Mch. Wanted—Bridge Construction.)

Tex., Galveston—Galveston County, E. B. Holman, County Judge, build 293 ft. reinforced concrete trestle bridge over Dickinson Bayou on State Highway No. 2; 500 cu. yds. concrete, etc.; bids within 30 days; C. C. Washington, County Engr. Lately noted; (See Mch. Wanted—Bridge Construction.)

Tex., Georgetown—Williamson County, H. A. Hodges, County Auditor, will construct bridge over North Gabriel River; two 120-ft. steel spans, 41-ft. girder approach at each end; concrete piers and abutments; bridge over Berry's Creek; 120-ft. steel span; 41-ft. girder approach on south end and four 41-ft. girders at north end; concrete piers, bents and abutments; Federal Aid Project No. 260; bids until Mch. 31; R. A. Nichols, County Engr. (See Mch. Wanted—Bridge Construction.)

Tex., Georgetown—Williamson County, H. A. Hodges, County Auditor, will construct bridge over San Gabriel River; two 120-ft. steel spans; 4-ft. concrete girder on south approach; two 41-ft. girders on north approach; concrete piers and abutments; Federal Aid Project No. 260; bids until Mch. 31; R. A. Nichols, County Engr. (See Mch. Wanted—Bridge Construction.)

Tex., Hallettsville—Lavaca County, J. A. Sommerlatte, County Judge, will construct reinforced concrete and steel span bridge over Rocky Ford Creek on State Highway

No. 3-B; cost \$18,500; W. H. Koether, County Engr.

Tex., Holland—Bell County, J. W. Sutton, County Judge, Belton, Tex., will build concrete bridges on Highway No. 2; cost \$75,000; bids opened; S. J. Treadway, County Engr., Temple, Tex. Lately noted. See Mch. Wanted—Bridge Construction.)

Tex., Orange—City plans building Sabine-Neches River bridge; W. E. Lea, Mayor.

Tex., Rusk—Cherokee County will construct 125-ft. steel bridge over Angelina River between Cherokee and Nacogdoches County line; bids until Mch. 30; Calvin E. Cooke, County Engr.; C. F. Gibson, County Judge. Lately noted. (See Mch. Wanted—Bridge Construction.)

Tex., Salado—Bell County, J. W. Sutton, County Judge, Belton, Tex. will construct concrete bridge; cost \$20,000; bids April 1; S. J. Treadway, County Engr., Temple, Tex. (See Mch. Wanted—Bridge Construction.)

Tex., Sierra Blanca—Hudspeth County, Herbert Schroeter, County Engr., let contract to Hess & Skinner, Southwestern Life Bldg., Dallas, Tex., at \$9,544.22, to construct 146-ft. reinforced concrete trestle bridge on State Highway No. 1.

Tex., Taylor—Williamson County, H. A. Hodges, County Auditor, Georgetown, Tex., will construct bridge over Bull Branch; three 41-ft. concrete girders, concrete bents and abutments; Federal Aid Project No. 260; bids until Mch. 31; R. A. Nichols, County Engr., Georgetown, Tex. (See Mch. Wanted—Bridge Construction.)

Tex., Walburg—Williamson County, H. A. Hodges, County Auditor, Georgetown, Tex., let contract to Austin Bros. Bridge Co., Dallas, Tex., to construct 60-ft. steel span; two 20-ft. approaches; concrete piers and abutments.

W. Va., Hancock—Maryland State Road Comsn., 601 Garrett Bldg., Balto., Md., plans building 786 ft. bridge over Potomac River.

W. Va., Harpers Ferry—Maryland State Road Comsn., 601 Garrett Bldg., Balto., Md., plans building 853 ft. bridge over Potomac River; W. Virginia and Maryland to finance jointly

W. Va., Lewisburg—Greenbrier County Court will construct Howards Creek bridge; 120-ft. span; also Spring Creek bridge; 120-ft. span; bids until April 4. (See Mch. Wanted—Bridge Construction.)

W. Va., Madison—Boone County, C. H. Nelson, Clk., will expend about \$38,500.60 to build 2 bridges and grade and drain 4-mi. road on Brawdy's Creek; contract let to Waugh Bros. Porter Co., Charleston, W. Va. for bridge construction; S. E. Bradley, Engr., Madison. (Lately noted bids until March 11.)

W. Va., Williamsport—Maryland State Road Comsn., 601 Garrett Bldg., Balto., Md., plans building 1681 ft. bridge over Potomac River; W. Virginia and Maryland to finance jointly.

W. Va., Shepherdstown—Maryland State Road Comsn., 601 Garrett Bldg., Balto., Md., plans building 603 ft. bridge over Potomac River; W. Virginia and Maryland to finance jointly.

## Canning and Packing Plants.

Fla., Lake Wales—Manatee Fruit Co.,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Tampa, Fla.; purchased site for packing plant.

Fla., Winter Haven—Brogdex Co., organized with E. M. Brogdex, Prest.; H. C. Ricketts, V.-P.; W. H. Hampton, Secy.

Ky., Louisville—Emmart Packing Co., capital \$10,000, inceptd. by Joseph M. Emmart and S. D. Camper.

N. C., Charlotte—Lance Packing Co., capital \$100,000, inceptd. by S. A. Van Every P. L. Lance; contemplates erecting plant.

Okla., Hugo—Hugo Canning and Preserving Co., W. T. Larimore, Mgr., plans building factory for canning tomatoes, berries, peaches, etc.; daily capacity 3000 to 5000 cans; cost from \$5000 to \$7000. Lately noted. (See Machinery Wanted—Tomato Pulp Machinery and Equipment; Canning Machinery.)

S. C., Sumter—Sumter Canning Co., capital \$30,000, inceptd. with H. J. Harby, Prest.; R. A. Bradham, V.-P.; E. M. Hall, Secy.

Tex., Brazoria—Gulf Coast Orchards Syndicate, E. B. Harang, Prest. will erect and equip fig preserving plant, capacity 1,000,000 lbs. figs; invites bids. (See Mch. Wanted—Canning Plant.)

### Clayworking Plants.

Ala., Gadsden — Brick — Gadsden Clay Products Co., Gordon Hood, Secy.-Treas. Mgr., install steam power unit to replace electric motors; plans include boiler and 100 H.P. engine.

Fla., Orlando—Pottery—Yowell-Drew Co., N. P. Yowell, Prest., reported to have purchased plant of Orlando Potteries; enlarge and install new machinery.

### Coal Mines and Coke Ovens.

Ky., Krypton—D. M. Williams Coal Co., capital \$25,000, inceptd. by W. F. Napier, Mgr.; D. M. Williams, Pryse, Ky.; William Ledford, Richmond, Ky.

Ky., Whitesburg—Coal River Collieries Co., capital \$2,000,000; acquired properties of Eureka-Elkhorn Coal Co., will develop; also purchased coal land in Boone County, will begin development this year.

Mo., Eoline—Moffet Coal Co., W. O. Lewis, Asst. Gen. Mgr., St. Louis, Mo. acquired 2000 acres coal land, started preliminary work preparatory to mining coal; erect miners houses, commissary, etc.; portion of mch. purchased; estimate expenditure of \$100,000 within 6 months.

Mo., Plattsburg—Allburn Coal Co., inceptd. acquired property of Plattsburg-Vibbard Coal Co., remodel plant; install equipment.

Tenn., Kingsport—Holston Coal Co., inceptd. by S. W. Sharrett, C. H. Cameron and Charles T. Herndon, Jr.

Va., Staunton—Little Lick Coal Co., capital \$100,000, inceptd. with Hugh B. Sproul, Prest.; John Stott, Secy.

W. Va., Charleston—Keystone Coal Co., inceptd. by Robert E. Brooke, Charles C. Brinton, both Philadelphia, Pa.; Frederick H. Brooke, Washington, D. C.; plans taking coal lease in Cabin Creek dist., install mining plant.

W. Va., Shinnston—Acme Coal Co., capital \$50,000, inceptd. by L. C. Crile and A. M. Leonard, Clarksburg, W. Va.; George W. Simpson, Johnstown, Pa.

W. Va., Wheeling—Wolf Coal Co., let contract to R. R. Kitchen & Co. to erect coal tipple.

### Cotton Compresses and Gins.

La., Monroe—Dr. C. H. Cole and others purchased plant of Monroe Cotton Oil Co.; operate mill and install new machinery. (See Cotton Seed Oil Mills.)

Tenn., Tiptonville—Planters Gin Co., capital \$10,000, inceptd. by G. W. Haynes, A. C. Chadwick.

Tex., Corpus Christi—F. V. Arnin; construct Bennett gin; L shaped; main building 24x94 ft., L 32x40 ft.; daily capacity 120 bales; cost about \$30,000; E. E. Hamon, Contr. (Previously noted to install gin-neries.)

Tex., O'Donnell—Hartberger Bros., Knox City, Texas; erect six stand and double air blast gin.

### Cottonseed-Oil Mills.

La., Monroe—Dr. C. H. Cole, and others purchased Monroe Cotton Oil Co.'s plant; plans organizing \$250,000 corporation; operate mill; install new machinery; etc.

### Drainage Systems.

Ark., Newport—Jackson County Comms. of Drainage Dist. No. 9 construct drainage system, consisting of 26,200 cu. yds. excavation, 17 acres clearing; bids opened; Bowman Engineering Co., Engr., Arkansas Bank & Trust Bldg.

Ark., Osceola—Mississippi County Directors of Drainage Dist. No. 17; construct 7½ mi. ditches; bids open; O. M. Fairley, Dist. Engr., Blytheville, Ark.

Fla., Tallahassee—Everglades Drainage Dist. Comms. let contract to C. E. Cummins Co., Cleveland, O. at \$112,000 to construct and complete Indian Prairie Canal; completed portion of canal now runs from Lake Okeechobee to Station 483, and proposed contract of 10 mi. will carry to station 1050.

Miss., Jackson—Fontaine & Fontaine, Civil Engrs., Clarksdale, Miss. submitted plans of drainage system for Parchman convict farm, to reclaim about 14,000 acres.

Miss., West Point—Clay County Comms. of Sun Creek Drainage Dist. No. 1, construct drainage system; clear right of way and dredge canal; bids until Apr. 1; L. J. Howard, Chancery Clk. (See Mch. Wanted—Dredging.)

Mo., Keytesville—Charitan County Drainage Dist. No. 2, plan constructing drainage system; reclaiming about 12,000 acres; sold \$140,000 bonds. Address Board of Directors. (Supersedes recent item.)

### Electric Plants.

Ala., Attalla—Business Men's Club interested in installing electric light system.

Ala., Dothan—City, R. W. Lisenby, Clk. let contract to Westinghouse Electric Mfg. Co., East Pittsburg, Pa. for complete installation of 1000 K.W. generator condenser and steel stokers per 3-300 H.P. boiler at electric light plant. (Lately noted \$70,000 bonds voted.)

Ala., Valley Head—Ft. Payne Light & Power Co., Ft. Payne, Ala. extend line from Ft. Payne to Valley Head.

Ala., Selma—Alabama Power Co., Thos. W. Martin, Prest., Birmingham, Ala., construct high tension transmission line from Selma to Marion; estimated cost \$75,000.

Fla., Gainesville—City let contract to Westinghouse Electric & Mfg. Co., East Pittsburg, Pa. for 625 K.V.A. turbo-generator for power plant; cost \$23,000; expend additional \$10,000 for foundation for generator.

Fla., Moss Bluff—Ocklawaha Reclamation Farms, J. D. Young, Leesburg, Fla., Engr.; develop 500 to 600 H.P. Lately noted constructing 20 to 30 mi. transmission line. (See Mch. Wanted—Electric Equipment.)

Fla., Pablo Beach—City, J. A. Bussey, Mayor, voted on \$38,000 bonds to construct

transmission line from South Jacksonville to Pablo. (Lately noted.)

Fla., Pensacola—Chamber of Commerce approved plan for development of Camp Saufley resort; install lighting and sanitary water system; estimated cost \$10,000; construct sidewalks; reconstruct boat pier, etc.; reported company to be organized.

Fla., Quincy—City plans voting on \$100,000 bonds for electric light extension, sewers and paving; J. P. Smith, City Clk.

Fla., Safety Harbor—City, A. E. Shower, Clk. votes Mch. 28 on \$45,000 bonds for electric light equipment and road construction. (Lately noted.)

Fla., St. Petersburg—City, extend electric light system. Address The Mayor.

Ky., Nebo—Nebo Light Co., inceptd. by L. J. Morrow, J. W. Stevens, J. H. Herron.

Fla., Wauchula—City let contract to Fairbanks-Morse Co., 900 Wabash St., Chicago, Ill., to install lighting plant; develop 260 K. W., alternating current; two 200 H.P. oil engines, with direct connection with 170 K. V.A. generator; cost \$40,000; E. L. Dunn, Supt. in Charge.

Ga., Atlanta—L. W. Rogers Realty & Trust Co., Ben. R. Padgett, Mgr., will install electric lights in 20 acre site to be developed. (See Land Development.)

Ky., Hazard—Kentucky & W. Va., Power Co., R. E. Breed, Prest., 30 Church St., N. Y., reported to erect addition to power plant; 3 story; F. R. Weller, Mills Bldg., Washington, D. C., Const. Engr., Foundation Co., 120 Liberty St., New York, Gen. Contrs.

La., New Orleans—Citizens' Light & Power Co., Harry K. Johnson, Prest. has under construction plant in Carrollton capable of developing 3000 H.P.; others units probably added later; will supply current to New Orleans and Gretna. (Lately noted organized with \$2,000,000 capital.)

Md., Baltimore—Electrical Comsn., 313 Courtland St., has under construction power line of 15 ducts; distribute current from Westport power house of Gas & Electric Co. to Sharp St. power distributing station; cost \$100,000. Address Ch. Engr. Goob.

Miss., Lumberton—Edward Hines Yellow Pine Trustees, F. W. Pettibone, Mgr. purchased municipal light and water plant, will improve.

Mo., Marshall—City, S. J. Duncan, Mgr. will open bids Mch. 24 for new unit of power plant; approximately 800 H.P.; Henric-Lowry, Engr., 222 Commerce Trust Bldg., Kansas City, Mo. (Lately noted.)

N. C., Pollocksville—Town Comms. will install electric light system.

N. C., Walnut Grove—J. W. Slate and H. E. Mitchell interested in establishment of electric light system and ice plant.

Okla., Red Rock—City votes Mch. 31 on building high power line to Ponca City, Okla. Address The Mayor.

S. C., Greenwood—Greenwood Water & Light Co., improve street lighting system.

Tenn., Knoxville—N. E. Logan will install electric light in 175 acre development on Kingston Pike. (See Land Development.)

Va., Fairfax—Fairfax & Loudon Light & Power Co., A. S. Harrison, V.-P., will construct 25 mi. 22,000-volt transmission line; 3 sub-stations; approximately 10 mi. distribution system; bids until Apr. 3. Previously noted inceptd., capital \$100,000. (See Mch. Wanted—Power Transmission System.)

Va., Harrisonburg—City will install steam or fuel oil auxiliary electric power plant to supplement present hydro-electric plant; cost approximately \$60,000. Address The Mayor.

Va., Remington—Wheatle Falls Power Co., capital \$100,000, inctpd. with A. L. Hord, Prest.; S. W. Cole, Secy.; distribute electric current for lighting and power purposes in Culpeper and Fauquier counties.

W. Va., Dunbar—Dunbar Light & Power Co., capital \$50,000, inctpd. by J. H. McClintic, W. G. Mathews, G. F. Skidmore, all of Charleston, W. Va.

W. Va., Kingwood—West Penn Power & Electric Co. purchased municipal light plant.

W. Va., Wheeling—Stroebe Radio & Electric Co., capital \$25,000, inctpd. by J. C. Stroebe, Sr., Henry G. Welmer, J. A. Hutchinson.

### Fertilizer Plants.

Ark., Little Rock—Arkansas Fertilizer Co. let contract to J. V. Isaac, Mgr. and Secy. Newport Foundry Co., Newport, Ark. for 6 steam dryer tanks.

Md., Baltimore—State Fertilizer Co., capital \$50,000, inctpd. by Samuel H. Hopkins, 3024 Remington Ave., John W. Dasher, Robt. S. Collier.

### Flour, Feed and Meal Mills.

N. C., Wadesboro—H. B. Allen has under construction roller mill.

Tenn., Jackson—Model Mill Co., capital \$40,000, organized with J. J. Fuqua, Milan, Tenn., Prest.; H. W. Monroe, V. P.—Gen. Mgr.; establish plant.

### Foundry and Machine Plants.

Ga., Atlanta—Furnaces—Monerief Furnace Co., S. P. Monerief, Mgr., 139 S. Pryor St. will erect two 50x100-ft. and one 30x40-ft. buildings; construction by day labor. (Latest noted.)

Ky., Central City—Machinery—Triangle Machine Works, W. B. Mix, Mgr.—Const. Engr., will erect 2 story 76x101-ft. plant, \$25,000; construction by owners; install \$10,000 mch. (See Mch. Wanted—Machine Shop Equipment.)

Ky., Newport—Steel—Andrews Steel Co., capital \$750,000, inctpd. by Joseph B. and W. N. Andrews, Newport; Albert K. Andrews, Cincinnati, O.

Md., Baltimore—Iron Pipe Nipples—Chicago Nipple Mfg. Co., Dixon C. Williams, Prest., 1966 Southport Ave., Chicago, Ill. (latest noted to establish branch plant) has building; mch. installed for mfr. of iron pipe nipples.

Md., Baltimore—Tanks, etc.—Baltimore Tank & Tower Co., 1223 Leadenhall St., capital \$500,000, inctpd. by Henry A. Brehm, Julius H. Wyman and John B. Berger.

Md., Baltimore—Machine Shop—Industrial Machine Corp., 501 E. Preston St., capital \$200,000, inctpd. by Whitney W. Jones, Herman Gamse and Addison W. Brock.

Mo., Kansas City—Machine Shop—G. F. Williams, 1809 Locust St., erect 1 story machine shop; brick construction.

Okla., Weleetka—Oil Well Machinery—Croft-Riley Co., capital \$100,000, inctpd. by E. L. Croft and H. E. Riley, both Fort Smith, Ark.; establish machine shop, construction started at early date.

Tenn., Knoxville—Mine Supplies—Tennessee Mill & Mine Supply Co., G. H. Manning, Prest., will occupy 4 story 43x137-ft. building on State St., with floor space of 29,955 ft.; tapestry brick and heavy mill construction; install heavy mill and mine mch.; erected by Judge H. L. McClung.

Va., Bristol—Southern Refrigeration Co., S. H. Chase, Secy., increased capital from \$400,000 to \$625,000.

### Gas and Oil Enterprises.

Ark., Mena—Mena Drilling Co., organized with John H. Hamilton, Prest.; J. G. Adams, V. P.; Clyde Cunningham, Secy.; develop gas and oil resources of Polk county.

Ga., Atlanta—L. W. Rogers Realty & Trust Co., Ben. R. Padgett, Mgr., will install gas system in 20 acre site to be developed. (See Land Development.)

Ky., Glasgow—Baird Oil Co., capital \$150,000, inctpd. by A. W. Baird, Jr., Brice Leech and T. S. Baird.

Ky., Louisville—Rudy F. Vogt Distributing Co., capital \$10,000, inctpd. by Omer C. Kendall, Thomas J. Duffy and Rudolph F. Vogt.

Va., Alexandria—Refinery—Alexandria Oil & Refining Co., H. T. Clark, Prest., plans erecting plant addition; double capacity.

Va., Crowley—Crowley-Simon Oil Co., inctpd. with \$100,000 capital.

La., St. Rose—Empire Oil & Gas Co., E. E. McWhiney, Secy., 60 Wall St., New York, acquired properties of Corson Petroleum Co.; reported to erect \$3,000,000 addition to plant.

Miss., Clarksdale—Standard Oil Co. of Mississippi, capital \$10,000, inctpd. by F. P. Fitz-Gerald and S. L. Dodds.

Mo., Joplin—Refinery—Wilhoit Oil Co., E. M. Wilhoit, Prest., Springfield, Mo., plans expending \$100,000 to erect refinery; install machinery.

Okla., McAlester—Doss Royalty Co., capital \$100,000, inctpd. by C. O. Doss, G. C. Cochran and A. U. Thomas.

Okla., Oklahoma City—Gasoline Tanks—Marland Refining Co.; construct 2 1200 gal. gasoline storage tanks.

Okla., Okmulgee—Improved Oil & Refining Co., capital \$100,000, inctpd. by Paul M. Pope, W. B. Bahn, Oklahoma City, Okla.; R. L. McClure, Okmulgee.

Okla., Ponca City—Marland Oil Co.; construct addition to tank farm; install additional stills, etc.

Okla., Tulsa—Heddo Gasoline Co., capital \$20,000, inctpd. by J. K. Davis, Jr., Wann V. Teasdale, Cleveland Hilson.

Okla., Tulsa—Thermal Oil & Gas Co., capital \$25,000, inctpd. by G. T. Braden, L. J. and R. B. Martin.

S. C., St. George—Citizens Holding Co., capital \$10,000, inctpd. with P. M. Judy, Prest.; L. M. Heaton, V. P.; A. B. Sheet, Treas.

Tex., Abilene—Homokla-Texas Co., capital \$50,000, inctpd. by W. J. and Mattie W. Milburn, both of Abilene and John F. Dickson, Oklahoma City, Okla.

Tex., Burkburnett—Prosperity Oil Co., capital \$250,000, inctpd. by Wm. Nelson, R. A. E. Purdue, C. E. Fallis.

Tex., Houston—General Petroleum Co., reorganization of General Oil Co.; develop holdings.

Tex., Houston—Texas Coast Oil Co., capital \$75,000, inctpd. by Bassett Blakely, J. M. Frost, Jr., J. T. Wyse.

Tex., McGregor—McGregor Oil & Mfg. Co., capital \$50,000, inctpd. by H. E. Hackney, C. P. Shaffer and J. D. Naler.

Tex., Panhandle—City, L. E. Brain, Mayor, will vote Apr. 4 on \$22,000 gas bonds.

Tex., Wichita Falls—M. & V. Oil Co., capital \$100,000, inctpd. by Ames J. Mitchell, Frank E. Vanwormer and Tom Fulton.

### Hydro-Electric Plants.

Ark., Yellville—Dixie Power Co., Title Guaranty Bldg., St. Louis, Mo., plans constructing 150-ft. dam on Buffalo River; 20-

000 H.P. (Previously noted under Little Rock, Ark.)

Fla., Quincy—City, J. P. Smith, Clk. plans erecting hydro-electric plant; cost \$175,000.

Va., Lynchburg—Lynchburg Traction & Light Co., John W. Hancock, Mgr., plans addition to steam power station on Blackwater Creek.

### Ice and Cold-Storage Plants.

Ala., Opelika—Summers Cooper Co., reported to install equipment for mfr. of ice.

Ark., Hoxie—S. A. Coats interested in establishing ice plant.

Ark., Walnut Ridge—Hoxie-Walnut Ridge Ice Co., install additional equipment.

Fla., Pensacola—Brockman Packing Co., erect cold storage plant.

Fla., Tampa—Frigid Mfg. Co., capital \$200,000, inctpd. by A. N. Duncan, P. K. Clark and A. T. Stuart.

Ga., Savannah—Friedman Ice & Cold Storage Co., rebuild burned ice and cold storage plant.

Ga., Lavonia—F. K. Douglas, Whitmire, S. C. reported to establish 8 ton capacity ice plant; mch. purchased.

Ky., Central City—Polar Wave Ice & Cold Storage, capital \$50,000, inctpd. by R. O. Nichols, U. C. Fortney and R. W. Cason.

Ky., Louisville—Emmart Packing Co., erect ice plant; Henschien & McLaren, Archts., Chicago, Ill.

Ky., Louisville—Liberty Ice & Cold Storage Co., 410 Crutcher & Starke Bldg., plans erecting 200 ton daily capacity ice plant.

La., Alexandria—Alexandria Creamery Co. plans installing refrigerating equipment.

La., Saint Bernard—Borgnemouth Ice Co., plans erecting \$30,000 ice plant.

La., Shreveport—Shreveport Ice Co., plans erecting ice and cold storage plant.

Md., Baltimore—City Ice Co., Cedar Ave., let contract to erect 1-story 14x60-ft. addition, brick construction; slag roof; steam heat; Callis & Callis, Archts., 2055 Kennedy Ave.

Md., Snow Hill—Merchants Assn. interested in establishing dairy, cold storage and ice cream plant.

Md., Waldorf—Southern Maryland Co-operative Creamery Assn. has plans for erection of ice plant.

Miss., Crystal Springs—C. A. Zilker, New Orleans, La. reported to erect 20 ton capacity ice plant; purchased site.

Miss., Vicksburg—P. P. Williams & Co. install refrigerating equipment in warehouse; Henschien & McLaren, Archts., Chicago, Ill.

N. C., Walnut Cove—J. W. Slate and H. E. Mitchell, interested in establishing ice plant and electric light system.

Okla., Muskogee—W. L. Hoffman, 5th. and Columbus St. erect \$13,000 cold storage plant.

S. C., Greenville—Swift & Co., Union Stock Yards, Chicago, Ill., erect cooling tower on Piedmont Ave., equip with refrigeration system.

Tenn., Alamo—D. O. Casey, reported to construct ice and cold storage plant.

Tenn., Covington—C. C. Hanson, establish creamery, cold storage and ice cream plant.

Tenn., Johnson City—Southern Refrigerating Co., Umka Bank Bldg., erect ice and cold storage plant; estimated cost \$200,000; has plans.

Tenn., La Follette—W. S. Harkness, Jellico, Tenn. reported to establish ice plant.

Tenn., Memphis—Tennessee Beverage Co., remodel brewery plant for mfrs. of ice.

Tex., Cleburne—Santa Fe Ice & Storage Co. (lately noted inceptd., capital \$60,000) organized with F. J. Phillips, Pres.; J. B. Murphy, Secy.-Treas.; C. G. Campbell, Mgr.; purchased established plant.

Tex., Cuero—Cuero Packing Co., has under construction cold storage warehouse, addition to plant.

Tex., San Antonio, South—A. C. Ham, Campbell, Mo. reported to establish 30 ton, raw water ice plant.

Va., Hopewell—City Point Hygiene Co. purchased established ice plant, will operate; probably erect building later, installing modern equipment.

Va., Hopewell—Hopewell Ice & Cold Storage Co., W. C. Ellis, Gen. Mgr. plans constructing electrically driven plant; first unit to be 106x25-ft.

Va., Lynchburg—Chamber of Commerce, interested in establishing \$250,000 cold storage plant.

Va., Roanoke—White Realty Corp. increase ice plants capacity.

W. Va., Bluefield—Bluefield Ice & Cold Storage Co. let contract to G. B. Bright Co., Detroit, Mich. at \$60,000 to erect and equip ice plant.

W. Va., Charleston—Diamond Ice & Coal Co., plans erecting 2 story 100x100 ft. ice plant on Bullitt St., steel, concrete and brick construction; \$30,000; also 2 story 30x70-ft. machinery building; reinforced concrete; cost \$50,000.

W. Va., Man—Man Ice & Supply Co., 430 E. 2nd St., organized with Bennett Russell, Pres.-Mgr.; Okey Chambers, Secy.-Treas.; has building; mchy. installed; daily output 12 tons ice. (Lately noted inceptd., capital \$25,000.)

W. Va., Richwood—Hornor Ice Co., Box 237, Clarksburg, W. Va., organized with J. Lee Hornor, Pres.-Treas.; F. Y. Hornor, V.-P.-Mgr. and Contr.; erect 40x100-ft. fireproof building; install 10 ton ice plant; General Equipment Co., Const. Engr., Parkersburg, W. Va.

### Iron and Steel Plants.

Ala., Birmingham—Gerson Rolling Mills will double capacity of plant; cost \$75,000.

Ala., Birmingham—Reinforced Bars etc.—Gerson Rolling Mills, M. J. Gerson, plans install additional motors, etc.; purchased.

Ala., Montgomery—Sloss-Sheffield Steel Co., contemplates building 250-ton daily capacity furnace.

### Land Development.

Ala., Birmingham—City interested in development of Underwood Park; cost \$10,000. Address The Mayor.

Ark., Fordyce—City, interested in establishing park. Address The Mayor.

Fla., St. Petersburg—City will develop parks, playgrounds, etc.; John Nolen, City Planner, Cambridge, Mass.

Ga., Atlanta—City may develop 85 acres for park purposes. Address Mayor Key.

Ga., Atlanta—L. W. Rogers Realty & Trust Co.; Ben. R. Padgett, Mgr., develop 20 acre site for residential purposes; expend about \$75,000; construct streets, install electric lights, water, sewerage and gas; O. K. Kauffman, Engr. in charge.

Ga., Milledgeville—Milledgeville Nursery Co., organized with J. L. Beeson, Pres.; Sam C. Patterson, V.-P.; L. C. Hall, Treas.;

develop 50 to 75 acres in pecans; approximate cost \$8000. Lately noted to establish pecan nursery.)

Miss., Biloxi—Biloxi Civic Club, Mrs. Byrd Enoch, Pres., plans establishing parks and playgrounds in central and eastern parts of city. (Previously noted plans establishing park at Back Bay, etc.)

N. C., Kinston—Birch & Douglas plan developing 90 to 100-acre site for pecan grove; plant 1800 to 2000 trees.

N. C., Hamlet—Carolina Fruit Land Co., capital \$200,000, organized with T. T. Cole, Pres., Charlotte, N. C.; develop 14,000 acre Leak-Everett tract.

N. C., Raleigh—State Fair Association, Albert L. Cox, Director, contemplates purchasing 200 acres for fair grounds.

S. C., Florence—Florence Title, Trust & Investment Co. will develop 72 acres for residential purposes.

S. C., Spartanburg—City plans developing parks, playgrounds, streets and roads; John Nolen, City Planner, Cambridge, Mass.

Tenn., Knoxville—N. E. Logan will develop 175 acres on Kingston Pike for residential section; install water mains, electric lights; etc.; cost \$40,000. (Lately noted.)

Tenn., Memphis—Belvedere Land & Improvement Co., capital \$50,000, inceptd. by M. D. Selden, John Adler and Howard F. Goldsmith.

Tenn., Nashville—Lindsley-Corson Co., capital \$25,000, inceptd. by S. M. Corson, Oscar F. Noel, H. Herbert Corson.

W. Va., Gassaway—Gassaway Land Co., capital \$15,000, inceptd. by J. D. McCoy, J. W. Smith, D. H. Baker.

W. Va., Keyser—West Virginia Fruit & Development Co., capital \$500,000, inceptd. by D. A. and J. S. Arnold, B. B. Cavitt.

### Lumber Manufacturing.

Ark., Little Rock—East Arkansas Lumber Co., capital \$600,000, inceptd. by J. W. Trieschmann, Gilbert Stacy, both Little Rock; A. Trieschmann, Crossett, Ark.

Fla., Bagdad—Bagdad Land & Lumber Co., capital \$1,500,000, inceptd. with W. B. Harbeson, Pres.; T. E. Henderson, Secy.-Treas.; W. H. Picard, Gen. Mgr.

Fla., Volusia—Volusia Cypress Co., capital \$100,000, inceptd. with E. P. Whitehair, Pres.; E. W. Landis, Secy.; T. E. Murree, Treas.

Fla., Wausau—Shaver Lumber Co., capital \$10,000, inceptd. by W. R., L. C. and R. W. Shaver.

Ky., Louisville—Frey Planing Mill Co., increased capital from \$50,000 to \$100,000.

La., Monroe—Darnell Lumber Co., Arkansas City, Ark. purchased 80 acres land near Floyd Station, plans to erect \$100,000 saw mill.

La., Monroe—Parlor City Lumber Co., capital \$100,000, inceptd. by F. A. Terzia, Sr. Pres.; F. A. Terzia, Jr., Secy.-Treas.

La., New Orleans—North Rampart Lumber & Supply Co. increased capital from \$25,000 to \$125,000.

Miss., Morton—Adams & Banks Lumber Co., contemplate erecting saw mill; daily capacity about 100,000 ft.

S. C., Charleston—A. C. Tuxbury Lumber Co. purchased timber tract adjoining present holdings; will develop.

Va., Richmond—Hammermill Securities Corp. chartered with Ernest R. Rehrend, Pres.; Carrol S. Weir, Secy., both Erie, Pa.; mfrs. timber products, etc.

### Metal-Working Plants.

Fla., Jacksonville—Metal Products—Flyn Products Co., capital \$100,000, inceptd. with E. A. Duncan, Pres.; E. M. Price, Secy.

Ky., Louisville—Apex Refrigerating Products Co., capital \$10,000, inceptd. H. J. Cline, Richard Fenley and John W. Rolli.

S. C., Greenwood—Automobile Towing—Automobile Towing Tongue Distributing Co. (lately noted inceptd.) organized with J. P. Bussey, Secy.-Treas. and Mgr.; distributing towing tongues for automobiles. (See Mchy. Wanted—Towing Tongues—(Automobile).)

Tex., Bryan—Shoe Polishing Machine—Automatic Shoe Polishing Co., J. L. Edge, Pres. increased capital to \$150,000; mfrs. shoe polishing machines.

Tex., Waco—Clippers—Monroe Clipper Co., capital \$100,000, inceptd. by Collier Monroe and others; mfrs. hair clippers.

Va., Norfolk—Molding—Fairmont Molding Corp., capital \$50,000, inceptd. with W. M. Hannan, Jr., Pres.; R. B. Howton, Secy.

Va., Richmond—Roofing, etc.—Reuben Burton Co., capital \$50,000, inceptd. with Reuben Burton, Jr., Pres.; Ben A. Burton, Secy.; mfrs. metallic skylights, roofing, etc.

### Mining.

Ala., Birmingham—Mica—Randolph Mica Development Co., capital \$150,000, Glenn S. Mathews, A. Alf Gillespie and Andrew C. Roberts.

Ala., Milstead—Gravel—Union Springs Gravel Co., capital \$25,000, inceptd. by Henry B. Crawford and M. H. Gardiner, both of Columbus, Ga., and others; developing gravel pits.

Ky., Summit—Asphalt—Ohio Valley Rock Asphalt Co., capital \$500,000, inceptd. by R. G. Price, Joseph S. Laurent and Dover Williams, Fountain City, Tenn.

Md., Cardiff—Rock, etc.—Peach Bottom Corp., capital \$1,500,000, inceptd. by George J. Muller, Fred R. Williams and Cora E. Proctor.

Mo., Phenix—Stone, etc.—Phenix Marble Co., Mastin Simpson, Pres.-Mgr., 19th. and Olive Sts., Kansas City, Mo.; develop 40 acres, mchy. building and equipment all purchased; output building stone, floor tile, crushed rock, riprap and fertilizer. (Lately noted.)

Okla., Tulsa—Stone—Quality Stone Co., capital \$25,000, inceptd. by A. C. Bancroft, W. L. Moody and F. S. Stover.

Tenn., Knoxville—Marble—Bond Marble Co., capital \$150,000, organized with H. H. Thrasher, Pres.; C. M. Jones, Secy.-Treas.; install large steel derrick, air compressors, air drill chandlers, etc., for marble quarry; monthly output from 10,000 to 20,000 cu. ft. block marble. (See Mchy. Wanted—Dericks; Compressors (Air); Drill (Air), etc.)

Tex., Brownsville—Rock, etc.—Valley Rock & Gravel Co., capital \$10,000, W. H. Mason, Jr., A. A. Ririe and H. L. Montandon.

### Miscellaneous Construction.

Fla., Miami—Harbor Improvements—City Commrs. will construct municipal wharves, dredging slip and turning basin; 155,000 cu. yds. excavation in slip, 20,000 cu. yds. excavation in turning basin, 1300 lin. ft. steel sheet pile bulkhead wall, 1300 lin. ft. wood sheet pile bulkhead wall; bids until April 4; Chas. W. Murray, Director of Public Service, Lately noted. (See Mchy. Wanted—Wharves, etc.)

Fla., Palm Beach—Pier, etc.—H. P. Margerum, acting officer of Yacht Club, plans building 600 ft. pier and 1 story, 40x60-ft.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



club house in Brelsford Park, foot of 6th. Ave.

Fla., Sarasota—Seawall—Burns Dredging Co., received contract to build 3700 ft. seawall around Cedar Point, reclaiming 22 acres; approximate cost of seawall, \$50,000 and dredging \$26,000; John Ringling, interested in project.

Fla., Sarasota—Pier—City will construct pier; offer \$250.00 for best sketch; invite plans; Leon W. Pickett, Commr. of Public Works.

Ga., Dawson—Swimming Pool—Davis-Daniel Post No. 133 of the American Legion, purchased 5 acre site for recreation park, construct 60x11-ft. reinforced concrete swimming pool, bath houses, etc.

Ga., Reynolds—Levee—Joel Hurt, Atlanta, Ga., rebuild 10 mi levee, height to be several ft. above high water mark.

La., Alexandria—Levee—Red River, Atchafalaya and Bayou Bouff Levee Board let contract to H. Deville & Co., Marksville, Miss., at \$13,000 to construct 57,000 cu. yds. levee in the island district between Alexandria and Boyce.

Md., Ocean City—Jetties—City will construct series of timber jetties to protect beach front; Legislature of 1920 appropriated about \$65,000 available Aug. 15, 1922 for work. Address The Mayor.

Md., Baltimore—Harbor Improvements—Port Development Comsn.'s plans for harbor improvements are being submitted; preliminaries for development of McComas street are taken up, having new pierhead line to accommodate 1200 ft. piers, building new bulkhead of heavy construction to be used as base for piers; negotiations have been under way with Western Maryland Ry. for leasing and building of at least two piers; Comsn. has \$2,200,000 available for immediate port development work, general plans include 8 piers, provides berths for 33 "ocean going vessels of 12000 tons each, with space behind for 20 warehouses from one to five stories in height, railroad trackage for 2,500 freight cars. (Previously noted.)

Mo., Kansas City—Dikes—City, contemplates constructing dikes along Missouri and Blue rivers and property about Holmes and Front Sts., Woodland Ave., following harbor line. Address The Mayor.

Mo., Kirksville—Heating Plant—A. D. Baum Heating & Plumbing Co. has contract to install heating plant in Andrew Taylor Still College of Osteopathy.

Mo., Springfield—Dam—J. A. McCoy and others interested in construction of \$20,000 dam, in connection with proposed building of sanatorium on McCoy farm.

N. C., Raleigh—Swimming Pool—Hayes Barton Recreation Co., capital \$100,000, incptd. by W. H. Mills, George L. H. White and W. C. Lewis; plan recreation center in Hayes-Barton, construct swimming pool, etc.

Tex., Houston—Canal Development—Ship Canal Development Co., increased capital from \$30,000 to \$60,000.

Tex., Port Arthur—Docks—Gulf Refining Co., plans building additional 1000 ft. to its docks.

### Miscellaneous Enterprises.

Ala., Montgomery—Montgomery Abattoir Co., (lately noted incptd., capital \$50,000) organized with W. O. Bellengrath, Prest.; Harry Snow, Secy.-Treas.; H. B. Daboval, Mgr.; will erect \$40,000 abattoir, open bids about 3 months' time; plans not completed.

Ala., Montgomery—Electrical—Minto-Kratz Co., capital \$15,000, incptd. by R. Kratz, Thomas J. Minto and J. S. Cloud.

Fla., Cocoa—Amusements—Cocoa Beach

Casino, capital \$20,000, incptd. with P. L. Kershaw, Prest.; A. G. Porcher, Secy.

Fla., Miami—Amusements—Atlantic Improvement Incorporation, capital \$30,000, chartered with C. E. Brogden, Prest.; A. C. Franks, Treas.

Fla., Miami—Dredging—Peninsular Dredging Co., capital \$75,000, incptd. with C. L. Crandell, Prest.; B. K. Crowell, Secy.-Treas.

Fla., Quincy—Laboratory—State Plant Board, Tallahassee, Fla., let contract to Southern Construction Co., Pensacola, Fla. at \$10,731 to erect tobacco experiment station, 2 story brick structure; has 21 acre site.

Fla., Seabreeze—Incinerator—City plans installing incinerator; voted \$5000 bonds. Address The Mayor. (Lately noted to vote.)

Fla., West Palm Beach—Laundry—Fisher-man's Co-operative Corp., capital \$10,000, chartered with Herman Guhl, Prest.; E. Sordeberg, Secy.; W. H. Fox, Treas.

Ga., Atlanta—Dairy, etc.—Livestock-Dixie Dairy & Live Stock Co., capital \$750,000, incptd. by Maxwell Browne and others; plan establishing dairies and stock farms in various sections of state.

Ga., McIntosh—Potato Curing—Liberty County Farm Bureau, plans to erect sweet potato curing house; capacity from 2500 to 5000 bu.

Ga., Rome—Potato Curing—W. E. Bowers, Secy., Floyd County Farm Bureau interested in establishing sweet potato curing plant in Etowah Dist.

Ky., Harlan—Construction—F. B. Henderson Construction Co., capital \$20,000, incptd. by O. R. Winfrey, S. M. Bryant and F. B. Henderson.

Ky., Louisville—Publishing—Revista Publishing Co. increased capital from \$15,000 to \$25,000.

Md., Aberdeen—Amusements—Aberdeen Amusement Co., capital \$25,000, incptd. by Wm. H. Rawhouser, Kent R. Ferrell and J. Wilmer Cronin.

Md., Baltimore—Dry Cleaning, etc.—Fish Dry-Cleaning & Dyeing Co., Max Fish, Prest., Youngstown, O.; establish \$60,000 dyeing and cleaning plant; purchased site on Pennsylvania Ave., erect 24x100-ft. and 50x42-ft. building.

Md., Chestertown—Construction—Old Line Construction Co., capital \$100,000, incptd. by George H. Cannan, Robert R. Ayers and Henry I. Christopher.

Md., Hagerstown—Chemical Engineers—R. C. Haff Co., (lately noted incptd., capital \$10,000) organized with R. C. Haff, Prest.-Mgr.; J. B. Ferguson, V.-P.; Fred C. Wright, Secy.-Treas.; has building; installed \$6000 equipment.

Miss., Columbus—Publishing—Commercial-Dispatch, V. B. Imes, Editor and Mgr.; consolidation of Commercial and Dispatch newspapers.

Miss., Gulfport—Ship Chandlery—R. C. Harper & Co., incptd. by I. F. Lahey, Pass Christian, Miss.; M. A. Spence, Hattiesburg, Miss.; M. A. Spence, Ellisville, Miss.

Mo., Cassville—Fire Fighting Equipment—City, J. H. Mitchell, Mayor plans purchasing \$2000 truck and other fire fighting equipment.

Mo., Joplin—Contractors—Allhards & Davis, 705 Frisco Bldg., incptd. by J. L. Allhards and R. E. Davis; railroad contractors.

N. C., Henderson—Potato Curing—Chamber of Commerce interested in establishing sweet potato curing house; J. C. Anthony, County Agent.

N. C., New Bern—Police Signal System—City, Edward Clark, Mayor let contract for police signal system; F. T. Patterson, City Clk.

Okla., Chickasha—Fire Fighting Equipment, etc.—City plans voting Apr. 4 on \$50,000 bonds; install fire alarm system, \$12,000; fire fighting equipment, \$22,000; purchasing site and construct fire station, \$16,000. Address Mayor Coffman. (Lately noted.)

Okla., Tulsa—Printing—Tulsa Art Printery, capital \$20,000, incptd. by J. E. McCutchan, W. T. and Katherine C. Roberson.

Okla., Wilson—Publishing—Wilson Publishing Co., capital \$10,000, incptd. by Don and C. D. Bowman, Wilson; Fred Davis, Ardmore, Okla.

S. C., Bennettsville—Potato Curing—Marlboro Potato Co., incptd. with E. W. Evans, Prest.; J. F. Everett, Jr., Secy.-Treas.

S. C., Easley—Potato Curing—M. L. Sullivan, Chrmn. of Committee, interested in establishing 15,000 bu. capacity potato curing house.

S. C., Greenville—Dry Cleaning—McKeithan's, Inc. chartered with N. A. McKeithan, Prest.-Treas.; C. S. Allen, Secy.

S. C., Williamston—Potato Curing—D. P. Gray, interested in establishing 10,000 bu. capacity sweet potato curing plant.

Tex., Beaumont—Incinerator—City, let contract for construction of second incinerator placed on wharf and dock property. Address The Mayor.

Tex., Ladonia—Hardware—Miller Hardware Co., capital \$10,000, incptd. by H. P. Erwin, T. A. Walker and W. R. Porter.

Tex., Port Arthur—Towing—Sabine Towing Co., increased capital from \$40,000 to \$85,000.

Tex., Vernon—Hardware—North Texas Hardware Co., capital \$75,000, incptd. by C. T. Herring, J. L. Showers and L. K. Johnson.

Va., Richmond—Laundry—Model Steam Laundry, J. R. Hutchinson, Prest., increased capital from \$50,000 to \$100,000.

Va., Roanoke—Fire Fighting Equipment—City install additional fire fighting equipment; voted \$60,000. Address Mayor Boxley. (Lately noted.)

Va., Roanoke—Plumbing—Frank E. Fielder Co., S. Commerce St., capital \$20,000, incptd. by Frank E. Fielder, Prest.; F. A. Engleby, Secy.

Va., Roanoke—Laboratory—Samson Dental Laboratory, capital \$15,000, incptd. with H. F. Shannon, Prest.; Aubrey Copridge, Secy.

Va., Williamsburg—Dairies—Peninsular Dairies, capital \$25,000, incptd. with G. L. Burleson, Prest.; Willard Gilley, Secy.

### Miscellaneous Factories.

Ala., Birmingham—Bottling—Nu Grape Co., capital \$12,000, incptd. by H. B. Matthews, Birmingham; J. T. Mangham, Bremen, Ga.; W. T. Walsh, Talladega, Ala.

Ark., El Dorado—Drugs—Dr. Patts Log Cabin Drugs & Cough Syrup Co., capital \$10,000, incptd. by James H. Patterson, Andrew W. Spears.

Ark., Jonesboro—Creamery—Co-Operative Creamery Association, capital \$10,000, organized with J. C. Copeland, Prest.; F. P. Crosby, V.-P.; Homer McEwen, Secy.

Fla., Buena Vista—Drugs—Buena Vista Pharmacy, capital \$25,000, incptd. with J. L. Gore, Prest.; S. P. Robineau, V.-P.; Hector L. Carter, Secy.

Fla., Chipley—Candy—J. E. Minechin establish candy plant.

Ga., Dublin—Bakery—W. B. Lafferty establish bakery.

Ga., Macon—Bakery—American Bakeries Co., will occupy \$100,000 bakery to be erected by R. A. McCord; 2 stories and basement. 50x212 ft.; contract let; Hupp & Shelverton, Archts.; W. L. Jackson, Local Mgr.

Ky., Louisville—Keller-Pfalzgraf Co., capital \$60,000, inceptd. by John and Elizabeth Keller, George L. and Irene F. Pfalzgraf.

La., Baton Rouge—Bottling—Star Bottling Works, increased capital to \$100,000.

La., Monroe—Drugs—City Drug Co., capital \$15,000, inceptd. with F. C. Amman, Prest.; F. M. Grant, Secy.-Treas.

Md., Annapolis—Creamery—Annapolis Creamery Co., 104 West St., capital \$45,000, inceptd. by Edward W. Ames, Howard E. Atterbury, Francis A. Lazenby.

Md., Baltimore—Cereal Products, etc.—Elton Corporation, 912 Clifford St., capital \$100,000, inceptd. by Louis and Franklin Horpel and Albert Lyman.

Md., Baltimore—Confectionery—John H. Dockman & Son, 32 E. Montgomery St. erect factory 17-25 Hughes St.; 5-story; cost \$25,000; Consolidated Engineering Co., Contrs., Calvert Bldg.

Md., Salisbury—Bakery—Delmarvia Baking Co., organized with Woodland P. Hobbs Prest.; establish chain of bakeries in Maryland and Virginia.

Miss., Meridian—Candy—Rogers Candy Co. will rebuild burned plant.

Miss., Meridian—Ice Cream—Sealle-Lilly Ice Cream Co. purchased property; remodel for plant.

Mo., Jefferson City—Bottling—Jefferson City Bottling Co., Commercial Ave.; erect addition to building; equip for plant. (Lately noted inceptd. and consolidating bottling works of A. W. Happy and Thos. J. Menteer).

Mo., St. Louis—Tobacco—J. Weisert Tobacco Co., 1120 6th St., will occupy factory; 5 stories; 63x90 ft.; reinforced concrete and brick; E. Lantz, Archt., 603 Post Dispatch Bldg.; H. O. Hirsch & Co., Walnright Bldg., Contr.

N. C., Burlington—Bottling—Coca-Cola Bottling Co., John M. Coble, Propr., erect plant.

N. C., Charlotte—Bakery—Sanitary Bakery Co., inceptd. by Dorus H. Dellinger, R. E. Ogburn, Prim S. Purrier.

S. C. Chester—Creamery—Community Creamery Co., H. M. DaVega, Secy.; has plant; install butter mfr. mch.; contract let. (Lately noted inceptd. as Chester Creamery Co.)

N. C. Greensboro—Clothing—A. Thorn Co., capital \$30,000, inceptd. by A. Thorn, Greensboro, H. Gredforb, New York, Charles Kohau, Raleigh, N. C.

N. C., Lenoir—Creamery—Caldwell County Creamery, E. F. Allen, Secy.-Treas., let contract to Melton & Hartley, Lenoir, at about \$5000 to erect brick construction creamery building; let contract to Creamery Package Mfg. Co., Philadelphia, Pa., at \$3581 for machinery to mfr. butter and ice cream. (Lately noted.)

N. C., Reidsville—Toilet Preparations, etc.—American Products Co., B. R. Stone, Mgr., increase capital \$50,000 to \$500,000.

N. C., Winston-Salem—Remedies—Warren Remedy Co., capital \$250,000, inceptd. by Edith A. and Hazel I. Warren and Geo. M. Ball.

Okla., Vinita—Drugs—Keller-Snelson Drug Co., capital \$25,000, inceptd. by J. T. Keller, J. W. Ashore, Paul K. Williams.

S. C., Batesburg—Bakery—Dr. J. D. Timmons, Propr. Commercial Hotel; erect and equip bakery, daily capacity 100 loaves.

S. C., Charleston—Bakery—Electric Maid Bake Shop, capital \$10,000, organized with C. A. Robertson, Prest. and Treas.; R. W. Carpenter, V.-P.; F. J. H. Haeslapp, Secy.

S. C., Greenville—Creamery—L. M. Pearson, Williston, S. C., contemplates establishing \$30,000 creamery.

S. C., Greenville—Bakery—Greenville Bakery Co., capital \$50,000, inceptd. by W. J. Cole and H. L. Eaton.

S. C. Sumter—Creamery—Sumter Creamery, capital \$25,000, inceptd. with E. H. Moses, Prest.; J. P. Booth, V.-Prest.; C. W. Schmolk, Secy.-Treas. (Lately noted.)

Tenn., Concord—Lime—H. J. Winfrey & Sons; construct 2 steel kilns for mfr. of lime; bids opened May 1.

Tenn., Covington—Creamery, etc.—C. C. Hanson, establish creamery, ice cream and cold storage plant.

Tex., Sherman—Drugs—Sherman Drug Co., capital \$20,000, inceptd. by P. L. Dickerson, Ed Harvey and Granville Jones.

Tex., Texarkana—Mattress—Rehkopf Mattress, capital \$21,000, inceptd. by Albert, Josie and Lizzie Rehkopf.

Va., Charlottesville—Drugs—Fuller Drug Co., capital \$30,000, inceptd. with W. D. Haden, Prest.; H. T. Shumate, Secy.

Va., Onley—Bakery—Delmarvia Baking Co., Woodland P. Hobbs, Prest., Salisbury, Md.; establish bakery.

Va., Salem—Chemical—Rex Chemical Co., capital \$1,000,000, inceptd. by Victor Yonce and R. B. Shelor, both of Salem; Eugene A. Chanaberry, Washington, D. C.

W. Va., Fairmont—Ice Cream—Diamond Ice Cream Co., organized with J. W. Preston, Prest.; W. Nelson Beale, Secy.; E. Carl Frame, Treas.; M. M. Foster, Mgr.; establish plant to mfr. ice cream, ices, etc.; expend \$20,000 to install equipment; Cherry-Bassett-Winner Co., Archt., Pittsburgh, Pa. (Lately noted under Marion County, W. Va., inceptd., capital \$50,000.)

W. Va., Huntington—Thermos Bottles—American Thermos Bottle Co. of West Virginia, has been inceptd., capital \$200,000, by George I. Neal, L. L. Wilson, G. A. Northcott. (Lately noted as having tentative plans for new unit, approximately 100,000 sq. ft. floor space.)

### Motor Cars, Garages, Tires, Etc.

Ark., Little Rock—Garage—W. N. Braddock, 3400 High St., erect garage.

Ark., Pine Bluff—Automobile Accessories—Eagles Sales Co., capital \$100,000, inceptd. by C. H. Puddephatt and Thomas Harper, Pine Bluff; H. E. Zahl, Moberly, Mo.; mfr. tire patches, casing patches, etc.

D. C., Washington—Automobile Accessories—Auto Exchange, 1111 14th St., N.W.; capital \$25,000, inceptd. by Frank N. Justice, Chester J. Carthness and Wm. R. Phelps.

D. C., Washington—Garage—Metropolitan Motor Co., 1028 Connecticut Ave., capital \$50,000, inceptd. by Eli B. Smith, Townley A. McKee and Benjamin Parkhurst.

Fla., Jacksonville—Motors—Estes Motor Co., capital \$10,000, inceptd. with E. J. Estes, Prest.-Treas.; N. J. Estes, Secy.

Fla., Marianna—Motors—J. J. McCaskill Motor Co., capital \$25,000, inceptd. with J. J. McCaskill, Prest.; C. B. Campbell, Secy.-Treas.

Fla., Pensacola—Motors—Franklin Motor Car Co., capital \$10,000, inceptd. with William A. Finlay, Prest.-Treas.; Ina Finlay, Secy.

Fla., St. Petersburg—Automobile Accessories—Non-Corroding Battery Co., capital \$25,000, inceptd. with W. F. Norton, Prest.; E. F. McMullen, Secy.-Treas.

Fla., Tampa—Garages—A. B. Williams, Washington, D. C. has under construction 44 garages at Morgan and Washington Sts., 4 concrete entrances with 22 ft. space for garages; in rear will establish repair shop and gasoline filling stations; has 110x105-ft. site.

Ga., Atlanta—Automobile—Chas. W. Tway, W. Peachtree St., plans erecting 2-story building, estimated cost \$60,000.

Ga., Vidalia—Motors—Strickland Motor Co., capital \$30,000, inceptd. by J. L. Strickland, T. M. LaBert and others.

Ky., Louisville—Motors—Universal Car Co. increased capital from \$15,000 to \$30,000.

Md., Baltimore—Garages—George F. Roberts, 3324 Cedar Ave., erect one 30x70-ft. and 12 40x65-ft. garages, brick; construction by owner.

Md., Baltimore—Garage—Chesapeake Baking Co., 2322 Oak St., erect 1 story 42x30-ft. garage, brick, gravel roof, steam heat.

Md., Frederick—Garage—Maryland Garage, capital \$100,000, inceptd. by Paul B. Koons, Walter S. Ritter and Louis Rath.

Miss., Crystal Springs—Service Station—Crystal Motor Co., J. S. Wise, Prest.; P. K. Grice, Secy.-Treas. and Mgr.; will erect 50x100-ft. fireproof building, costing \$10,000; bids open June 1.

Miss., Meridian—Garage—Peden Auto Co.; rebuild burned building.

Miss., Meridian—Garage, etc.—William Gilmore, 6th St. plans erecting 65x75-ft. automobile garage and machine shop; install modern equipment; purchased site.

Miss., Meridian—Filling Station, etc.—Star Service Co., E. F., J. H. and J. M. Lawrence, Proprs., plans erecting drive-in filling and service station; purchased 65x75-ft. site at 2101-6th St.

Mo., Kansas City—Garage—M. B. Bach, 1718 Harrison St., erect 1 story garage, brick construction.

Mo., St. Louis—Filling Station—Standard Oil Co. plans erecting filling station on Clayton rd. at Park entrance; has 147x300-ft. site.

N. C., Salisbury—Tires—Paul Rubber Co. increased capital to \$1,000,000.

Okla., Quinton—Motors—Baker Motor Co., capital \$10,000, inceptd. by L. J. Lantz, Stigler, Okla.; J. F. Baker and James Stiles, Quinton.

S. C., Beaufort—Garage, etc.—Beaufort Garage & Accessory Co., inceptd. with L. Utsey, Prest.-Treas.; A. W. Beach, Secy.

S. C. Charleston—Automobile Repairing—Auto Repair & Parts Co., inceptd. with H. B. Sparkman, Prest.-Treas.; A. R. Dutes, Secy.

S. C., Rock Hill—Motors—Greene Motor Co., capital \$10,000, inceptd. with G. H. Greene, Prest. Secy. and Treas.; A. M. Greene, V. P.

Tex., Houston—Tires—Keystone Tire Co., capital \$10,000, inceptd. by M. Arila, G. W. Kregel and R. W. Plummer.

Tex., Houston—Automobile Enameling—Switzer-Parke Co., 105 Paige St., erect plant additions, install equipment for electro plating; specialize in automobile refinishing work.

Va., Bedford—Garage, etc.—Auto Service & Electric Corp., capital \$50,000, chartered with P. F. Yates, Prest.; Guy E. Murray, Secy.

Va., Norton—Garage—U. S. Bureau of Mines, Washington, D. C., construct garage for mine rescue truck; bids opened Mch. 28; plans obtainable at Bureau of Mines.

Va., Richmond—Automobile Accessories—Tire & Battery Sales Corp., capital \$25,000, chartered with J. M. K. Marshall, Pres., West Point, Va.; R. H. Corr, Secy., Cohoke, Va.

### Railways

Ala., Sylacauga—Arthur Taylor, of Sylacauga, is completing an 8 mi. extension of the Wisconsin-Alabama Lumber Company's railroad into Coosa County, this to be finished about April 15.

Fla., Orlando—J. F. Ange, of Orlando, and others are reported interested in plans to build an electric railway connecting Sanford, Plant City, Eustis and Daytona.

Fla., Pensacola—Notice is published of intention to apply for incorporation of the Muscle Shoals, Birmingham & Pensacola Railway Co., to build a line about 303 miles long from Muscle Shoals, Ala., to Pensacola, Fla. The incorporators are John T. Steele, of Buffalo, N. Y., who holds 32,498 shares of stock and is president and treasurer; Hubert C. Mandeville, of Elmira, N. Y., vice-president; and Harold B. Thorne, of Montclair, N. J., Roscoe C. Greenaway is secretary. Capital and New York City, who hold one share each.

### Road and Street Construction.

Ala., Birmingham—Jefferson County Board of Revenue will improve Lock 17 road to Warrior River; will invite bids; cost \$40,000.

Ala., Dothan—City let contract to Couch Construction Co., to pave 7 blocks residence section, embracing Foster St., with reinforced concrete paving; R. W. Lisenby, Clk.; Robt. L. Totten, Consol. Engr., Birmingham, Ala. (Lately noted bids until March 15.)

Ala., Selma—City will construct concrete sidewalks on Furness Ave. (Improvement Ordinance No. 112); concrete sidewalks on Parkman Ave. (Improvement Ordinance No. 105); concrete sidewalks on Church St. (Improvement Ordinance No. 108); concrete sidewalks on Franklin St. (Improvement Ordinance No. 109); concrete sidewalks on Union St. (Improvement Ordinance No. 110); bids until April 8; W. O. Crisman, City Engr. (See Machinery Wanted—Paving.)

Ark., Harrisburg—Poinsett County Commrs., Ozark Trail Road Improvement Dist. will construct 10 mi. reinforced concrete pavement, 18 ft. wide; bids until April 12; Morgan Engineering Co., Engr., Memphis, Tenn. (See Machinery Wanted—Paving.)

Ark., Harrisburg—Poinsett County, Bay and St. Francis River Highway Impv. Dist., let contract to L. D. Harvey & Co., Memphis, Tenn. at \$53,000 for constructing 16 mi. improved roads; Morgan Engineering Co., Engr., Memphis, Tenn. (Lately noted inviting bids.)

Ark., Little Rock—City, Road Dist. Nos. 25 and 26 plan curb gutter and storm sewer improvements on Sycamore, 13th and 16th Sts.; cost \$115,724; Address The Mayor.

D. C., Washington—Dist. Commrs. will improve Ninth St., Dupont Circle, P and R Sts.; cost \$50,700.

Fla., Bushnell—City, J. L. Himes, Mayor, will expend about \$30,000 to pave streets; approximately 12,000 sq. yds.; bids until Apr. 10; Young, Merrin Engineering Co., Engr. Lately noted. (See Mch. Wanted—Paving.)

Fla., Brooksville—Hernando County Commissioners, let contract to Mickler & McLeod, Tampa, Fla. to reshape and rebuild about 20 mi. hard roads; bituminous material; H. C. Mickler, Clk. (Lately noted inviting bids.)

Fla., Clearwater—Pinellas County Commrs.

plan voting June 20 on \$2,500,000 bonds to widen 3 main trunk highways and improve lateral roads; brick; concrete; asphalt; or asphalt block; bids until May 2; address County Engr. Burleson. (Lately noted.)

Fla., Delray—City plans improving streets; will let contract; Geo. L. Long, in charge.

Fla., Eustis—City contemplates additional street paving. Address The Mayor.

Fla., Fort Lauderdale—City plans expending about \$80,000 to construct streets; 8000 cu. yds., grading; 50,000 sq. yds. rock base; 18,000 lin. ft. curb and gutter; 32,000 yds. asphalt surface treatment; 18,000 sq. yds. penetration macadam; H. C. Davis, City Engr.; plans voting on \$35,000 bonds. (Lately noted.)

Fla., Ft. Pierce—City plans issuing \$10,000 warrants for repairing and constructing streets. Address The Mayor.

Fla., Palm Beach—Ocean & Lake Realty Co. let contract to Greynolds & Monroe, at \$20,000 for constructing paved streets, sidewalks and curbs in tract located south of Gus Baths.

Fla., Quincy—City plans voting on \$100,000 bonds for street paving, electric light extension and sewers; J. P. Smith, City Clk.

Fla., Safety Harbor—Town, A. E. Shower, Clk., will construct road and install electric light equipment; vote Mch. 28 on \$45,000 bonds.

Fla., Tampa—Hillsborough County Commrs. will construct 160 mi. of 9, 15, and 24 ft. roads; brick, asphalt block, asphaltic concrete, sheet asphalt, plain concrete, penetration method; etc.; \$3,000,000; bids until April 24; Charles T. Frend, Chrmn. (See Machinery Wanted—Road Construction.)

Fla., Wauchula—Hardee County, Geo. M. Hardee, Clk., plans road construction; contemplates voting on \$1,000,000 bonds; H. S. Jaudon Engineering Co., Engr. (Lately noted.)

Fla., West Palm Beach—Palm Beach County Commrs. will construct Military Trail Lake North Roads; low bidder Greynolds & Monroe at \$49,340. (Lately noted.)

Ga., Atlanta—L. W. Rogers Realty & Trust Co., Ben R. Padgett, Mgr., plans laying 6000 lin. ft. concrete streets in 20-acre site to be developed. (See Land Developments.)

Ga., Buchanan—Haralson County will vote Mch. 31 on \$200,000 bonds for road construction. Address County Commrs.

Ga., Savannah—City, J. W. Motte, Director Public Works, will pave or re-pave W. Broad St.; 23,000 sq. yds.; low bidder Dixon Contracting Co. (Lately noted inviting bids.)

La., Lafayette—City, Robt. L. Mouton, Mayor, will pave streets with brick, concrete, asphalt, asphaltic concrete or bitulithic, with necessary curbing, gutters, etc.; storm sewers, drainage, etc.; 7370 lin. ft. concrete gutters; 20,750 sq. yds. pavement; bids until Apr. 17; J. B. McCrary Engineering Corp., Engr., Atlanta, Ga. (See Mch. Wanted—Paving.)

La., Monroe—Ouachita Parish Police Jury, J. M. Beard, Pres., will construct 1 mi. hard surface Monroe-Natchitoches road, from Trenton St. West Monroe to crossing of V. S. & P. railway; bids until April 19; H. C. Daigre, Parish Engr. (See Machinery Wanted—Road Construction.)

La., Monroe—City, P. A. Poag, Secy., will pave Jackson St. from DeSiard St. to Lee Ave.; sheet asphalt; bids until April 3; R. S. Reynolds, City Engr. (See Machinery Wanted—Paving.)

La., Thibodaux—State Highway Comsn., New Orleans, La., plans constructing 4 1/2

mi. Chacahoula road in Lafourche Parish; Chas. J. Coulon, Clk., Lafourche Parish Police Jury.

La., Thibodaux—State Highway Comsn., New Orleans, La. will construct 22 mi. Thibodaux-Loockport road and 5 1/2 mi. Bayou Blue and Houma road, in Lafourche Parish Dist. No. 4; Chas. J. Coulon, Clk., Lafourche Parish Police Jury.

Md., Baltimore—Board of Awards, Mayor W. M. F. Broening, Pres., will construct Dulany Valley road; 37,000 cu. yds. earth excavation; 5000 cu. yds. rock excavation; 26,500 sq. yds. concrete roadway; low bidders Christliff, Ensey and Firor, Munsey Bldg., at \$118,000; H. G. Perring, Ch. Engr. (Lately noted bids until March 22.)

Md., Bel Air—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., will construct 4.19 mi. State Highway along Phila. Road from end of Cont. No. H-26-A to Bush; concrete; Harford County Cont. No. H-27; bids until April 11. (See Machinery Wanted—Road Construction.)

Md., Frederick—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., will construct 2 mi. State highway from end of Cont. No. F-27A to Urbana; concrete; Frederick County Cont. No. F-49; bids until April 11. (See Machinery Wanted—Road Construction.)

Md., Towson—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., will construct 3.34 mi. State highway on York Road from end of Cont. No. B-30 to Penna. State line; concrete; Baltimore County Cont. No. B-35; bids until April 11. (See Machinery Wanted—Road Construction.)

Md., Westminster—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md., will construct 3.75 mi. State highway from end of Cont. No. 216 to Union Bridge; concrete; Carroll County Cont. No. C1-25; bids until April 11. (See Machinery Wanted—Road Construction.)

Miss., Hattiesburg—City let contract to J. S. Holloway Construction Co., for paving streets; 28,800 sq. yds.; brick and reinforced concrete; 16,200 lin. ft. curbing; etc.; T. E. Batson, Mayor. (Lately noted inviting bids.)

Miss., Waynesboro—State Highway Dept., Jackson, Miss., let contract to Jones-Miller Construction Co., Hazelhurst, Miss., at \$38,035.48, to construct 6.4 mi. highway between Meridian and Waynesboro in Wayne County. (Lately noted bids opened.)

Mo., Bethany—State Highway Dept., Jefferson City, Mo., will construct 6.169 mi. state road from New Hampton eastward and westward; cost \$51,001.06; Harrison County, Federal Aid Project No. 50; bids until Mch. 30; A. D. Lingley, Div. Engr., Balingher Bldg., St. Joseph, Mo. Lately noted. (See Mch. Wanted—Road Construction.)

Mo., Carthage—City will pave Central Ave. from Main to Howard Sts., and from Howard St. to Frisco railroad; cost \$26,000. Address The Mayor.

Mo., Clinton—State Highway Dept., Jefferson City, Mo., let contract to Maxwell Construction Co., Columbus, Kan., at \$17,128.67 to construct 7.677 mi. state road from Clinton to Warrensburg; Henry County, Federal Aid Project No. 128; S. M. Rudder, Div. Engr., Sedalia, Mo. (Lately noted.)

Mo., Fulton—State Highway Dept., Jefferson City, Mo., will construct hard surface road in Williamsburg Special Road Dist.; gravel; cost \$75,000; also hard surface road in New Bloomfield Road Dist.; culverts erected; cost \$160,000; bids invited; W. P. Doyers, County Surveyor, Fulton.



Mo., Hermitage—State Highway Dept., Jefferson City, Mo., will construct 7.4 mi. state road from Preston to Collins; cost \$42,010.14; Federal Aid Project No. 45; 7.035 mi. state road from Wheatland eastward and westward; cost \$37,493.57; Federal Aid Project No. 98; both Hickory County; bids until Apr. 4; S. M. Rudder, Div. Engr., Sedalia, Mo. Lately noted. (See Mch. Wanted—Road Construction.)

Mo., Moberly—State Highway Dept., Jefferson City, Mo. will pave state road in Randolph County; brick or concrete costing \$61,375.40 or \$64,929.64.

Mo., Poplar Bluff—City, P. T. Sigler, Mayor, will pave streets; concrete; cost \$150,000; bids until April 3; E. C. Nickey, Engr. Lately noted bids until March 20. (See Machinery Wanted—Paving.)

Mo., St. Charles—City will pave business section Main St.; concrete. Address The Mayor.

N. C., Brevard—North Carolina State Highway Comsn., Raleigh, N. C., will construct 10-mi. soil road and structures from Brevard to Rosman on route No. 28; Transylvania County Project No. 990; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Burnsville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 14-mi. soil road between Swiss and end of F. A. Project No. 90, on route No. 69; Yancey County Project No. 888; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Camden—North Carolina State Highway Comsn., Raleigh, N. C., will construct 2.0-mi. hard surface road between Pasquotank River bridge and Camden on route No. 34; Camden County Project No. 110; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Fayetteville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 11-mi. hard surface road between Fayetteville and Hoke County line on route No. 24; Cumberland County Project No. 340; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Greenville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 6.7-mi. soil road and structures from Bethel to Edgecombe County line on route No. 90; Pitts County Project 187; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Greensboro—North Carolina State Highway Comsn., Raleigh, N. C. will construct .64 mi. hard surface road in Guilford County; cost \$18,000; Project 539; bids until Mch. 30. (See Mch. Wanted—Road Construction.)

N. C., Halifax—Halifax County will construct gravel clay road between Scotland Neck and Rich Square; bids until March 31. Address County Comms.

N. C., Halifax—North Carolina State Highway Comsn., Raleigh, N. C., will construct 12.58 mi. soil road in Halifax-Northampton Counties; cost \$150,000; Project 138-A; bids until Mch. 30. (See Mch. Wanted—Road Construction.)

N. C., Henderson—North Carolina State Highway Comsn., Raleigh, N. C., will construct 9.8-mi. hard surface road with structures between Henderson and Warren County line on route No. 50; Vance County Project No. 473; bids latter part of April. (See Mch. Wanted. Road Construction.)

N. C., Jacksonville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 12-mi. graded road between Jacksonville and Dixon on route No. 30, with structures; Onslow County Project No. 364B;

bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Murphy—Cherokee County Comms., plans constructing road from Murphy to Copperhill; vote April 15 on \$25,000 bonds.

N. C., New Bern—City, Edward Clark, Mayor, plans expending \$150,000 to pave about 30 blocks in residential section.

N. C., Oxford—North Carolina State Highway Comsn., Raleigh, N. C., will construct 4.19 mi. hard surface road in Granville County; cost \$126,000; Project 428; bids until Mch. 30. Supersedes recent item. (See Mch. Wanted—Road Construction.)

N. C., Pittsboro—North Carolina State Highway Comsn., Raleigh, N. C., will construct 6.7-mi. soil road between Siler City and Randolph County line on route No. 60, with structures; Chatham County Project No. 402; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Raeford—North Carolina State Highway Comsn., Raleigh, N. C., will construct 10.45 mi. soil road in Hoke County; cost \$25,000; Project 544; bids until Mch. 30. Supersedes recent item. (See Mch. Wanted—Road Construction.)

N. C., Rockingham—North Carolina State Highway Comsn., Raleigh, N. C., will construct 14-mi. soil road between Hoffman and Rockingham on route No. 50, with structures; Richmond County Project No. 661; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Rockingham—North Carolina State Highway Comsn., Raleigh, N. C., will construct 6.6-mi. hard surface road between Rockingham and Hamlet on route No. 20, with structures; Richmond County Project No. 665; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Sanford—North Carolina State Highway Comsn., Raleigh, N. C., will construct 6-mi. hard surface road between Sanford and end Project S98c, on route No. 50; Lee County Project No. 446; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Shelby—North Carolina State Highway Comsn., Raleigh, N. C., will construct 1.5-mi. hard surface road, with structures, between Gaston County line and Kings Mountain on route No. 20; Cleveland County Project No. 821; 7-mi. hard surface road, with structures, between Kings Mountain and Cleveland Springs on route No. 20; Cleveland County Project No. 822; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Statesville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 10.4-mi. soil road from Statesville to Alexander County line, with structures, on route No. 75; Iredell County Project No. 640; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Taylorsville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 9.5-mi. penetration macadam road between Taylorsville and Iredell County line, with structures, on route No. 75; Alexander County Project No. 600; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Troy—Montgomery County Highway Trustees, W. B. Hicks, Chrmn., Biscoe, N. C., will construct 9.6 mi. Ophir road; top-soil; bids opened; L. V. Edwards, Consult. Engr., Winston-Salem, N. C. (See Mch. Wanted—Road Construction.)

N. C., Warrenton—North Carolina State Highway Comsn., Raleigh, N. C., will construct 6.7-mi. hard surface road between Norlina and Vance County line, with structures, on route No. 50; Warren County Project No. 494; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Wentworth—North Carolina State Highway Comsn., Raleigh, N. C., will construct 17.6-mi. hard surface road between Reidsville and Virginia line on route No. 70; Rockingham-Caswell Counties Project No. 593; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Whiteville—North Carolina State Highway Comsn., Raleigh, N. C., will construct 17-mi. soil road and structures, between Lake Waccamaw and Freeman, on route No. 20; Columbus County Project No. 326; bids latter part of April. (See Mch. Wanted—Road Construction.)

N. C., Wilson—Road—Wilson County Comms. will vote April 18 on \$2,000,000 bonds.

N. C., Winston-Salem—North Carolina State Highway Comsn., Raleigh, N. C., will construct 10.3-mi. hard surface road with structures, between Reynolds and Yadkin River, on route No. 60; Forsyth County Project No. 742; bids latter part of April. (See Mch. Wanted—Road Construction.)

Okla., Anadarko—Caddo County Comms. plans road construction in North Cement Township; contemplates voting on about \$49,000 bonds.

Okla., Oklahoma City—Oklahoma County, Tom Bodine, County Clk., let contracts as follows: to Green Construction Co., Southwest National Bank Bldg., Oklahoma City, at \$74,871.60 to hard surface State road Section 17; 7-in. plain cement concrete; to M. A. Swatek & Co., 412 Security Bldg., Oklahoma City, at \$40,975.60 to hard surface State road Section 19; 7-in. plain cement concrete; to Continental Asphalt & Petroleum Co., Oklahoma City, at \$50,554.40, to hard surface State road section 25; rock and asphalt. (Lately noted bids until March 3.)

S. C., Chesterfield—Chesterfield County Comms. will construct 5.584 mi. Washington-Atlanta highway, between Ingram's mill race and Juniper creek; 14,239 lbs reinforced concrete; concrete bids until Apr. 5; T. E. Mulloy, County Engr. (See Mch. Wanted—Road Construction.)

S. C., Darlington—Darlington County Comms. sold \$100,000 bonds to improve roads.

S. C., Pickens—Pickens County, W. L. Matheny, Clk. Comms. will construct 8 mi. Pickens-North Carolina highway; sand-clay or top-soil; cost \$100,000; bids between April 15 and May 1. Lately noted. (See Mch. Wanted—Road Construction.)

S. C., York—York County Comms. will construct 2705 mi. York-Smyrna Road, between Hickory Grove and Bullock's Creek; 8470 cu. yds. top-soil surfacing; 1969 lbs. steel reinforcement; Federal Aid Project 154; bids until April 6. (See Machinery Wanted—Road Construction.)

Tenn., Alamo—City will pave streets and public square; vote April 10 on \$15,000 bonds. Address The Mayor.

Tenn., Athens—City, R. P. Knight, let contract to Coker, Gamble and Brown, Chattanooga, Tenn., at \$80,000 to pave streets; J. B. McCalla Co., Engr., Knoxville, Tenn. (Lately noted.)

Tenn., Johnson City—City, T. H. McNeil, Recorder, will grade and pave Claiborne St., between Walnut and Chestnut Sts., Grover St., between Walnut and Chestnut Sts., between Walnut and Poplar Sts., etc.; 43,650 sq. yds. pavement; 34,300 lin. ft. curb and gutter; sewers, etc.; bids until April 12. Lately noted bids until March 17. (See Machinery Wanted—Paving.)

Tenn., Knoxville—N. E. Logan will improve streets in 175-acre site to be developed. (See Land Developmnt.)

Tenn., LaFollette—State Highway Comsn.,

Jesse L. Rodgers, Chrmn., LaFollette, will improve following roads; LaFollette road up Dowell's Valley to Claiborne county line, cost \$50,000; Tributary road toward Cedar Creek, cost \$5000; road leading to Union and Claiborne boundary, cost \$40,000; Branch road from Cedar Creek to Union County line, cost \$10,000; road to connect LaFollette and Union County; two roads from city limits, one to Pleasant Ridge, cost \$5000; one to Ford Town, cost \$5000; road from 2 mi. west city to Anderson County line, cost \$60,000; road from Red Ash to Elk Valley road and Scott County line, cost \$52,000; continue Habersham road to Buckeye, cost \$90,000; complete road from City to Westbourne, cost \$15,000; plans expending about \$500,000 to construct concrete or asphalt Dixie Highway from LaFollette to Anderson County line.

Tenn., Lenoir City—City, Z. B. Wilson, Mayor, will expend about \$16,000 to pave 3 streets; asphalt and cement; B. C. Barker, Engr.; J. B. McCalla & Co., Engr., Knoxville, Tenn. Lately noted. (See Machinery Wanted—Asphalt; Cement.)

Tenn., Nashville—City, Felix Z. Wilson, Mayor, will open and pave streets; \$478,000 available; W. W. Southgate, City Engr. (Lately noted.)

Tex., Angleton—City will vote April 29 on \$220,000 bonds for road construction; hard surface roads leading into Angleton; connect with air line road to Houston on north. Freeport, Danbury and West Columbia roads. Address The Mayor.

Tex., Belton—Bell County, J. W. Sutton, County Judge, will construct reinforced concrete drainage structures on State Highway No. 2; 15-mi.; \$250,000; bids opened March 28; S. J. Treadway, County Engr., Temple, Tex. (See Machinery Wanted—Road Construction.)

Tex., Cameron—Milam County sold \$100,000 bonds for completing State and Federal highway No. 36 through county from county line near Rogers through Buckholts, Cameron, Hoyt and Milano; 19 mi.; complete 21 mi. lateral roads; W. G. Gillis, County Judge; A. F. Mitchell, County Engr. (Lately noted.)

Tex., Cameron—Milam County, W. G. Gillis, County Judge; will construct 18.8 mi. State Highway No. 36 from McCowan Bridge to Burleson County line; cost \$120,000; A. F. Mitchell, County Engr.; bids in near future.

Tex., Clarksville—Red River County, R. J. Williams, County Judge, will improve State Highway No. 5 from Detroit-Bagwell Dist. line to Clarksville—Paris road intersection; cost \$50,000; plans constructing 4.5 mi. State Highway No. 37, from intersection of State Highway No. 35 to Rosalie-Clarksville Dist. line; cost \$37,500; F. W. Gaines, County Engr.

Tex., Coleman—Coleman County Comms., let contract to Burks & Hart, Comanche, Tex. at \$25,250 for constructing 6.14 mi. Brady Road to Precinct No. 1 Line.

Tex., Coleman—Coleman County Comms., let contract to McCall & Moore Engineering Co., Waco, Tex. for drainage works and Burks construct 2705 mi. York-Smyrna Road, be & Hart, Comanche, Tex., for grading and surfacing on 23 mi. road from Coleman to Callahan county line; involving 160,000 cu. yds. earthwork; 46,683 cu. yds. gravel surfacing; cost \$250,000; L. G. Matthews, County Judge, W. E. Dickerson, County Engr. (Lately noted bids until March 13.)

Tex., Dallas—Dallas County, Arch Allen, Judge, plans repaving Dallas-Oak cliff viaduct; 4000 ft. stretch, 41 ft. wide with asphalt or bitulthic; cost \$42,000; will invite bids March 31.

Tex., Dallas—Dallas County Comms. Court let contract to Rawhide Paving Co. of Texas, at \$210,000 to \$240,000 for paving 30 mi. Dallas County Belt Line Road; natural earth road; mixed with asphalt.

Tex., Fort Worth—Tarrant County, Hugh L. Small, County Judge, will construct 3.64 mi. 18-ft. asphaltic macadam road on State Highway No. 40 from Keller to Denton County line; cost \$86,000; R. V. Glenn, County Engr.

Tex., Houston—City, Mayor O. F. Holcombe, will pave Andrew St. from Wilson to Mason; invites bids; pave Rusk Ave. from Milam to Main Sts.; plans paving Marsh Ave., from Runnels to Hill Sts.

Tex., Lufkin-Angelina County, John F. Robinson, County Judge, plans constructing 15 mi. 16-ft. gravel road on State Highway No. 35; Lufkin-Clark Ferry road; cost \$225,600; G. R. Abney, County Engr.

Tex., Marshall—Harrison County plans constructing 10.8 mi. Highway No. 8 from Marshall, Tex. in Harrison County to Marion County line; gravel surfacing; cost \$110,000; Geo. A. McClellan, County Engr.; W. H. Strength, County Judge.

Tex., Orange—Orange County voted \$700,000 bonds for road construction; 300 mi. hard surface roads from Morgan City, La., to Houston and Galveston, Tex. Address County Comms. (Lately noted to vote.)

Tex., Pearsall—Frio County, J. C. Pranglin, County Judge, will construct 35 mi. State Highway No. 2 from Medina County line to La Salle County; gravel and bituminous topping; cost \$600,000; J. D. Metcalfe, County Engr.

Tex., San Angelo—Tom Green County plans constructing 15.43 mi. Highway No. 4; crushed rock and bituminous topping; cost \$130,000; Gibb Gilchrist, County Engr.

Tex., San Antonio—Bexar County, let contract to W. T. Montgomery, Alamo Bank Bldg., at \$34,927, to construct 6.2 mi. State Highway No. 9 between Atascosa County line and San Antonio; 1-in. limestone and rock asphalt; C. E. Hoff, County Engr.

Tex., Wichita Falls—Wichita County, J. P. Jones, County Judge, will construct 3.16 mi. State Highway No. 2; 18-ft. reinforced concrete paving; bids within 30 days; J. M. Isbel, County Engr. Lately noted. (See Machinery Wanted—Road Construction.)

Va., Roanoke—City, Mayor Boxley voted \$200,000 bonds to improve streets. (Lately noted to vote.)

W. Va., Charleston—City let contracts to Andrews Asphalt Paving Co., Hamilton, Ohio; Board & Healey, and G. T. Fogle & Co., both Charleston, W. Va., at \$190,000 for paving Randolph St., Columbia Blvd., Second Ave., Stockton and other streets. (Lately noted invited bids.)

W. Va., Huntington—City, Mat. Miser Comms. Streets and Sewers, will grade, curb and pave following streets and aves.; Edward, Buffington, 22nd and 2nd Sts. and Monroe, Latulle and Doulton Aves.; bids until Apr. 5; A. B. Maupin, City Engr. (See Mch. Wanted—Paving.)

W. Va., Madison—Boone County, C. H. Nelson, Clk., will expend about \$38,500.56 to grade and drain 4 mi. road on Brawdy's creek and build 2 bridges; contract let to Nelson & Cain, Danville, W. Va. for road construction; S. E. Bradley, Engr., Madison. (Lately noted bids until March 11.)

W. Va., Philippi—Barbour County Court will construct following roads: 2 mi. Philippi-Belington road; bituminous macadam pavement; Federal Aid Project No. 91; 1½ mi. bituminous macadam pavement; Federal Aid Project No. 27. (Previously noted.)

## Sewer Construction.

Ark., Little Rock—City plans storm sewer improvements and paving in Road Dists. Nos. 25 and 26, on Sycamore, 13th and 16th Sts.; Address The Mayor.

D. C. Washington—District Comms., Room 509 District Bldg.; construct relief sewer in Kansas Ave.; Adam McCandlish, 1215 Harvard St., N. W., Contr.

Fla., Eustis—City contemplates additional sewer construction. Address The Mayor.

Fla., Fort Lauderdale—City will construct storm sewers, streets, and river front improvements vote on \$50,000 bonds. G. C. Davis, City Engr. (Lately noted.)

Fla., Quincy—City plans voting on \$100,000 bonds for sewers, light extensions and paving; J. P. Smith, City Clk.

Ga., Atlanta—L. W. Rogers Realty & Trust Co., Ben. R. Padgett, Mgr., will install sewers in 20-acre site to be developed. (See Land Development.)

Ga., Atlanta—City, J. N. Lamders, Pur. Agt. let contract to Wood-Rucker Construction Co. at \$4278 to construct Brownwood park sanitary sewer; rejected bids to construct Highland Ave. trunk sewer and Ponce de Leon and Angier Ave. connecting sewers; will call for new bids. (Lately noted.)

La., Lafayette—City, Robt. L. Mouton, Mayor, will install 52 inlet basins and 22 manholes for storm drainage; bids April 17; J. B. McCrary Eng. Corp., Engr., Atlanta, Ga. (See Mch. Wanted—Sewer Construction.)

Md., Hagerstown—City; extend sewer system; J. B. Ferguson, Engr.

Mo., Charleston—City votes April 4 on bonds to extend storm sewer system. Address The Mayor. (Lately noted.)

N. C., Dallas—City, A. R. Holland, Clk.; improve sewer and water system; W. M. Pratt, Const. Eng., First National Bank, Durham, N. C. (Lately noted to issue \$35,000 bonds.)

N. C., Roxboro—City, install sewer system; cost \$40,000; Spoon & Lewis, Engrs., Greensboro, N. C.

N. C., Conover—City plans sewer and water works system; cost about \$50,000; Spoon & Lewis, Engrs., Greensboro, N. C.

N. C., Troy—City, C. C. Broughton, Mayor, let contract at \$30,836.10, to Boyd-Higgins & Goforth Co. to install sewers and water works system. Harwood Beebe, Engr., Spartanburg, S. C. (Lately noted.)

N. C., Winston-Salem—Marvin Ferrell of Pilot Real Estate Co. let contract to Porter Plumbing Co. to construct 1½ mi. sewer and water systems in Buena Vista Annex; J. E. Ellerbee, Engr.

Okla., Perry—City, F. F. Busch, Clk.; improve sewers; Municipal Excavator Co., Oklahoma City, Okla., Contr.; Black & Veatch, 701 Mutual Bldg., Kansas City, Mo., Engrs. (Lately noted issued \$40,000 sewerage bonds.)

Tex., Weatherford—City; extend sewer system; cost \$25,000; G. M. Parker, Engr.

Okla., Tulsa—City, Mrs. Frank Seaman, Auditor, will construct storm sewer along portions of East 11th St., etc.; cost \$30,147.01; bids until March 30. (See Machinery Wanted—Sewer Construction.)

Okla., Tulsa—City, Mrs. Frank Seaman, Auditor, will construct storm sewer from alley east of Vancouver Ave. to west line of Waco Ave.; bids until March 31.

Tex., El Paso—City, Chas. Davis, Mayor; construct sewer lines from Pershing Drive to Madison St.; estimated cost \$3800.

W. Va., Huntington—City will construct lateral sewer south side of Eleventh Ave. between 21 and 22nd Sts.; bids April 5; Mat. Miser, Comm. of Streets and Sewers, A. B. Mauplin, City Engr. Latey noted. (See Machinery Wanted—Sewer Construction.)

W. Va., Mannington—Kiwanis Club interested in improving sewer and water system.

### Telephone Systems.

Ala., Birmingham—Matthews Electric Supply Co., H. W. Matthews, Prest., 1821 First Ave. install radio distributing station, range about 200 mi.; Donald Beatty, Engr. in charge.

Ala., Fort Morgan—Tropical Radio Telegraph Co., subsidiary of United Fruit Co., T. D. Nettles, local Mgr., Mobile, Ala., leased wireless station, has equipment.

Ala., Gadsden—Electric Construction Co., Broad St., plans building radio receiving station.

Fla., Tampa—Peninsular Telephone Co., W. G. Brorein, Prest.-Gen. Mgr., plan expending about \$250,000 on extensions and improvements, including additions to underground cable system; install additional and new automatic equipment in several of exchanges; construct additional toll circuits and replacement of aerial wire and cable with underground cable; all work under supervision of Company's Supt. (Latey noted.)

Md., Baltimore—Chesapeake & Potomac Telephone Co., Board of Directors, authorized increase of capital to take care of expenses and increased facilities as demanded; probably issue \$3,000,000 additional this year.

N. C., Granite Falls—Granite Falls Telephone Co., L. T. Sharpe, Prest., plans extensive improvements; install modern equipment; build direct copper circuit to Hickory and direct connection with Lenoir. (Latey noted.)

N. C., Hendersonville—J. Mack Rhodes, Mayor; proposes installing radio receiving station in opera house; probably outline plan to members of Kiwanis Club and Board of Trade.

Okl., Pleasant Hill—Pleasant Hill Mutual Telephone Co., inctpd. by Charles Hager, Porter Corn and L. F. Brown, all Hunnewell, Kan.

Tex., Corsicana—Fred M. Allison, has under construction radio station, working in co-operation with Corsicana Radio Club; Roy L. Layton, supervising construction.

Tex., Gonzales—Gonzales Telephone Co., increased capital from \$30,000 to \$60,000.

### Textile Mills.

Tex., El Paso—Walter E. Stockwell of Chamber of Commerce interested in organization of textile manufacturing business.

### Water Works.

Ala., Dothan—City, R. W. Lisenby, Clk. let contract to Beeson Machinery Co., Kansas City, Mo. for installation of 35,000 ft. of water mains, hydrants and valves. (Latey noted bids until March 20.)

Fla., Pensacola—Chamber of Commerce approved plan for development of Camp Saufley project; install sanitary water system and electric lights; cost \$10,000.

Fla., Seabreeze—City will install water works; voted \$55,000 bonds. Address The Mayor. (Latey noted to vote.)

Ga., Atlanta—L. W. Rogers Realty & Trust Co., Ben. R. Padgett, Mgr., will install water works in 20-acre site to be developed. (See Land Development.)

Ga., Augusta—City, W. H. Wise, Engr. and Commr. of Public Works, bids opened for laying approximately 800 lin. ft. of 6-in. water main on Chestnut St. from Wrightsboro Road to Anderson Ave., J. W. Westmoreland, Clk.

La., Bossier—City; install \$40,000 water system; bids April 25; E. T. Archer & Co., Engrs., New England Bldg., Kansas City, Mo. and Shreveport, La., lately noted to install water works. (See Mch. Wanted—Water Works.)

Md., Sykesville—City contemplates constructing water system. Address The Mayor. Miss., Lumberton—Edward Hines Yellow Pine Trustees, F. W. Pettibone, Mgr. purchased municipal water and light plant; will improve.

Mo., California—City, A. B. Cole, Jr., Mayor, will improve and extend water-works; vote on \$60,000 bonds. (Latey noted.)

N. C., Conover—City plans water works and sewer system; cost about \$50,000; Spoon & Lewis, Engrs., Greensboro, N. C.

N. C., Dallas—City; A. R. Holland, Clk.; improve water and sewer system; W. M. Pratt, Consit. Engr., First National Bank, Durham, N. C. (Latey noted to issue \$35,000 bonds.)

N. C., Greensboro—City, P. C. Painter, Mgr. plans improving water works.

N. C., Lexington—Town, J. A. Leonard, Mayor, will improve water-works; construct brick and concrete pumping station, filter house, and filter tube; brick and concrete auxiliary station; concrete storage reservoir; concrete coagulating basin; 3½ mi. cast iron pipe; 3½ mi. 2200-volt transmission line; install filter plant equipment; to use motor-driven centrifugal pumps and accessories; bids until Apr. 15; Gilbert C. White Co., Engr., Durham, N. C.; Paul R. Raper, City Clk. Latey noted bids until Apr. 6. (See Machinery Wanted—Water-works Equipment.)

N. C., Morgantown—City, reported to improve water system; install gravity system, dam and reservoir; O. B. Lackey, Engr.

N. C., Pollockville—Town Commrs. will install water works.

N. C., Sanford—Town, W. H. Flitts, Mayor, let contract to Tucker & Laxton, Charlotte, N. C., at \$6000 to \$7000, for constructing 6 and 8-in. water mains; Gilbert C. White, Engr., Durham, N. C. (Latey noted inviting bids.)

N. C., Troy—City, C. C. Broughton, Mayor, let contract at \$30,836.10, to Boyd-Higgins & Goforth Co. to install water and sewer system; Harwood Beebe, Engr., Spartanburg, S. C. (Latey noted.)

N. C., Winston-Salem—Marvin Ferrell of Pilot Real Estate Co. let contract to Porter Plumbing Co., at \$18,000 to construct 1½ mi. water and sewer system in Buena Vista Annex; J. E. Ellerbee, Engr.

S. C., Greenwood—Greenwood Water & Light Co. plans laying additional water mains.

Tenn., Coal Creek—Chamber of Commerce, W. L. Allison, interested in establishment of water works.

Tenn., Knoxville—N. E. Logan will install water mains in 175 acres on Kingston Pike development. (See Land Development.)

Tex., Abilene—City, Dallas Scarborough, Mayor, let contract to Janes Construction Co., to rehabilitate water distributing system; lay 34, 800 ft. 8 to 14 in. pipe. install forty 6-in. fire hydrants; valves, fittings and automatic devices; 10,000 ft. pipe line supplied to Abilene Country Club; construct 6-in. main to epileptic colony; contract let to American

Cast Iron Pipe Co., Birmingham, Ala. for pipe.

Tex., Highland Park, P. O. Dallas—City, H. R. Davis, Mayor, will extend water works, consisting of sinking two wells; cost \$50,000; E. L. Myers, Engr. (Latey noted.)

Tex., Panhandle—City, L. E. Brain, Mayor, will vote April 4 on \$54,000 water works bonds.

Tex., Pharr—City contemplates voting on water bonds. Address The Mayor.

Tex., Roby—Town, J. C. Hilburn, Mayor, will vote April 8 on \$25,000 water works construction bonds.

Tex., Shamrock—City votes April 18 on \$100,000 bonds for installing water works. Address The Mayor.

Tex., Stephenville—City voted \$50,000 bonds for water works improvements. Address The Mayor. (Latey noted.)

Va., Harrisonburg—City will construct additional supply reservoir, cost \$40,000, extend 20-in. pipe line from source of city's water supply 15-mi. west of town to new reservoir, cost \$115,000. Address The Mayor.

W. Va., Clarksburg—Water Board will construct 2 concrete storage dams, Nos. 2 and 3; 790 cu. yds. rubble concrete in dams; bids until April 22; Scotland G. Highland, Secy. and Gen. Mgr.; Fuller & McClintock, Engrs., 170 Broadway, New York. (See Machinery Wanted—Water Works.)

W. Va., Mannington—Kiwanis Club interested in improving water and sewer system.

W. Va., Northfork—Northfork-Clark Water Works, capital \$25,000, inctpd. by J. H. Bane, Clarence Samuel, L. C. Austin.

W. Va., Piedmont—City votes April 3 on \$30,000 pumping and chlorinating plant bonds. Address The Mayor.

W. Va., Wheeling—City, C. H. Dowler, Mgr., plans improving water works; install 20,000,000-gal. rapid sand filtration system, etc., vote in April on \$2,000,000 bonds; J. N. Chester Engineering Co., Engrs. (Latey noted.)

W. Va., Wheeling—City, Water Coman. will vote April 24 on \$2,000,000 bonds for filtration plant; Morris Knowles, Engr., Pittsburgh, Pa. (Latey noted.)

### Woodworking Plants.

Fla., Lake City—Barrels—Interstate Coöperage Co., Jacksonville, Fla., plans erecting coöperage and barrel plant, first unit to be 150x200 ft.; mfr. spirit, syrup and fish barrels.

Fla., Palmetto—Furniture—Snyder Furniture Co., capital \$10,000, inctpd. with Chas. F. Snyder, Prest.-Treas.; William M. Snyder, Secy.

La., New Orleans—Mops—Edward and Charles Jumonville, 604 Liverpool, London and Globe Bldg. plan organizing company to mfr. mops in quantities. (See Machinery Wanted—Handle Machinery; Yarns.)

Miss., Lumberton—Truck Bodies—Martin-Perry Corp., York, Pa. establish plant for mfr. of truck bodies, annual capacity 60,000.

Miss., Lumberton—Handles—Nola Broom Factory, establish plant for mfr. of broom handles.

Miss., Meridian—Furniture—Meridian Chair & Furniture Co., William Poppenheimer, Prest., rebuild plant, burned at loss of \$125,000.

S. C., Darlington—Furniture—Darlington Furniture Co., capital \$15,000, inctpd. with J. S. Ramsey, Prest.; J. E. Moncreif, Secy.-Treas.



S. C., Florence—Furniture—Rainwater Furniture Co., capital \$30,000, inceptd. by I. S. Rainwater, H. G. Weaver and J. H. Baggett. Tex., Waco—Furniture—Waco Barbers' Supply & Mfg. Co., T. P. Fetzer, Secy.-Treas., increased capital to \$50,000.

Va., Roanoke—Furniture—Teams, Jones & Blankenship Co. increased capital from \$50,000 to \$100,000.

### Fire Damage.

Ala., Boaz—Archer Drug Store; Dooly Store.

Ark., Carlisle—N. W. Young & Son's store and warehouse; Dairyman's Bank; Nichols & Hudson's buildings; loss \$25,000.

Ark., Manson—W. T. Holland's store and dwelling, latter occupied by Harvey Johnson; Mrs. M. A. Beaver's residence.

Ark., Warren—G. H. Brummett Auto Co.'s building; loss \$33,000; Southwestern Bell Telephone Co.'s office.

Fla., Miami—Deep Rock Water Co.'s plant.

Fla., Wildwood—Two story brick school building. Address Board of School Trustees.

Ga., Augusta—Grand Opera House.

Ga., Augusta—S. Steinberg's department store; loss \$25,000.

Ga., Dublin—P. C. Collins' residence; loss \$20,000.

Ga., Moultrie—Harrell Motor Co.'s and two adjoining buildings; loss \$30,000.

Ga., Savannah—Building at Whittaker and President Sts. occupied in part by Geo. W. Thomas' bicycle store.

Ky., Cynthia—Connorsville High School; loss \$20,000. Address County Board of Education.

Ky., Louisville—C. & C. Shirt Mfg. Co.'s plant, 125 S. Sixth St.

La., Slidell—S. T. Alcus & Co.'s office building, boiler house and dry kiln; loss \$50,000.

Md., Mt. Washington, P. O. Baltimore—Samuel F. Roche's automobile paint and repair shop on Falls Rd.; loss estimated at \$15,000.

Md., Willoughby—Talbot & Preserving Co.'s plant; reported; loss between \$75,000 and \$100,000.

Miss., Canton—Canton Ice Co.'s plant; loss \$100,000.

Miss., Meridian—Meridian Chair & Furniture Co.'s 3 story building; loss \$125,000.

Miss., Minter City—Robert Townes' residence; loss \$15,000.

Mo., Caruthersville—Bridgwood Estate's building; loss \$25,000; Philip Hamra's store; loss \$60,000.

Mo., Kansas City—A. Basile Grocery Co.'s building at 613-15 Independence Ave.; loss \$10,000.

Mo., St. Louis—West St. Louis Tool & Machinery Co.'s building at 606 S. Vandeventer Ave.

N. C., Goldboro—Carolina Warehouse Co.'s building.

S. C., Chester—Mount Olive Baptist Church Address The Pastor.

Okla., Durant—J. Bob Williams' residence; loss \$15,000.

Okla., Oklahoma City—Huckin's Estate building at Main and Broadway; May Bldg., Main St.; total loss \$50,000.

S. C., Greenville—F. J. Stover's residence.

S. C., Greenville—T. O. Turner's residence, about 6 mi. west of city between White Horse and Montague Rd.

Tenn., Tullahoma—Fitzgerald & Clarke

school building. Address Board of Education.

Tex., Cisco—A. L. Mayhew's building; loss \$35,000; Alexander Ward's building; loss \$30,000.

Tex., Fort Worth—Drum Seed & Floral Co.'s hot house; loss \$25,000.

Tex., Granger—Christian Church (address The Pastor); buildings of Dr. G. M. Kincaid, W. J. Pope, Mrs. Sallie Covington, Dr. W. Winn and others; loss \$25,000.

Tex., Lone Oak—Christian Church. Address The Pastor.

Tex., Stephenville—Pittman Hotel. Address The Manager.

Va., Harrisonburg—Sanitary Pottery, H. W. Dickey, Lessee; loss about \$25,000.

W. Va., Charleston—J. L. Landers' dwelling and garage at 4th Ave. and Cherry St., Oakland addition.

W. Va., Montgomery—Odd Fellows' block; Champe Building; loss \$50,000.

### Damaged by Explosion.

Tenn., Hollywood, P. O. Memphis—Royal Refining Co.'s gasoline tanks.

### Damaged by Storm.

Ark., Arkansas City—Roy Miller's Garage; Methodist Church, colored; address The Pastor.

La., Homer—Gulf Refining gravity station; loss about \$15,000.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Apartment Houses.

D. C., Washington—Victor Cahill and Chas. F. Foley will erect apartment house at 1900 Biltmore St., N. W.; fireproof, 8 apartments of 3 rooms and bath; cost \$50,000; Frank Russell White, Archt., 1410 G St., N. W.

Fla., Miami—Fred W. Brown will erect apartment house on South Bay Shore at foot of S. E. 12th Terrace; 25 apartments; Hampton & Reimert, Archts.; G. L. Miller Bond & Mortgage Co. is arranging financial details.

Fla., Orlando—R. H. Holland will remodel building on W. Pine St. for store and apartments; cost \$10,000; plans later to erect 3 more storerooms.

Fla., St. Petersburg—Jos. Sharp will erect apartment house on 2nd Ave., north between 2nd and 3rd Sts.; cost \$10,000.

Md., Baltimore—Herbert L. Grymes, 743 Calvert Bldg., will erect apartment house at Roland Park; 70x40 ft.; 3½ stories; Monitor-Bi-Loop heating plant; slate roof; 6 suites of 6 rooms each; bids opened; Roy G. Pratt, Archt., 323 N. Charles St.

N. C., Asheville—H. A. Dunham and Chas. N. Malone are considering erecting apartment house at Merrimon Ave. and Chestnut St.; cost \$60,000; 3 stories; 18 apartments.

N. C., Asheville—Thos. S. Rollins plans to erect apartment house on Chestnut St.; 18 suites.

Okla., Oklahoma City—L. J. Simmons will erect brick apartment house at 214 W. 7th St.; cost \$65,000.

Tenn., Knoxville—General Building & Finance Co. will erect apartment house; cost about \$130,000; brick walls; semi-fireproof; composition flat roof; oak floors; hollow fireproof tile; steam heat; Barber & McMurray, Archts. (Lately noted).

Tenn., Nashville—Clarence Bernstein will erect apartment house at 33rd and West End Aves.; cost \$50,000; 3 stories; 12 apartments of 3 to 5 rooms each; brick and reinforced concrete; C. K. Colley, Archt.

Tex., Houston—Judge Chester H. Bryan will erect apartment house on LaBranch St. between Frances and Holman Sts., South End; cost \$21,000; 2 stories; brick veneer; 4 apartments.

Tex., Houston—Morris Greenberg will erect 2 story frame and stucco apartment and garage, 1814 Fannin St.; cost \$10,000.

Tex., Houston—Frank T. Shepherd Estate will erect apartment house at Calhoun Ave.

and Milan St.; cost \$31,800; 2 stories; frame; 18 apartments.

Va., Richmond—Atlantic Construction Co. will erect apartment house at 3133 W. Clay St.; cost about \$10,000; brick.

Va., Richmond—Virginia Realty & Construction Co. will erect apartment house at 3427 Grove Ave.; cost \$25,000; 3 stories.

#### Association and Fraternal.

Ky., Louisville—Aurora Lodge of Masons, Walter J. Hoffman and others, Bldg. Comm., will erect building at Deerwood Ave. and Bardstown Rd.; cost \$50,000; 2 stories; brick; C. J. Stinson, Archt.

Ky., Louisville—Union Labor Temple will erect building at 127 W. Market St.; cost \$250,000.

La., Plaquemine—Plaquemine Council, 970, Knights of Columbus, Peter M. Wilbert, Grand Knight, will erect \$75,000 building.

La., Thibodaux—LaFourche Council, 1114, Knights of Columbus, purchased site at Green and W. 5th Sts. and plans to erect building.

Miss., Louisville—Masonic Order will erect building; cost \$15,000.

Mo., Campbell—American Legion Post will erect memorial building; cost \$25,000; 2 stories.

Fort Worth, Tex.—Victor Ellig Post, American Legion, will erect building on N. B St., between 5th and 6th Sts.; cost \$12,000; site donated by Harry E. Kelley.

Tex., Galveston—Young Woman's Christian Assn. will erect building at 21st St. and Avenue G; fireproof; cost about \$150,000; site and building funds donated by Mrs. J. C. League.

Tenn., Memphis—Board of Directors, Catholic Club Building Assn., E. F. Longinotti, Secy., will receive bids until April 24 to erect building; 97x149 ft.; 6 stories; fireproof; separate bids on general contract, heating, plumbing, wiring, plans and specifications from Regan & Weller, Archts., 834 Bank of Commerce Bldg. (Previously noted.)

Tex., San Angelo—Masonic Order plans to erect fireproof temple; Rev. T. J. Sloan, Rector, Emanuel Episcopal Church, interested.

Tex., Texarkana—Texas Masonic Lodge will erect \$75,000 building at 7th and Olive Sts.

W. Va., Huntington—Huntington Post, No. 16, American Legion, Alex. Garred, Post Commander will erect building; cost \$35,000; 2 stories; 50x200 ft.; brick; hollow fireproof tile; interior tile; metal ceiling; ornamental terra cotta; metal doors; roll-

ing partitions; wire glass; steel sash and trim; vault lights; ventilators; W. F. Diehl, Archt.; constructed by service men. Address Frank Weiler, Post Adjutant. (Late-ly noted.)

Va., Lynchburg—James River and Lynchburg Lodges of Odd Fellows, Guy L. Wingfield and others, Comm., opened bids to erect temple; S. S. Johnson, Archt.; John P. Pettyjohn & Co., is lowest bidder at \$77,750; P. V. Edmunds, heating, \$6319. (Previously noted.)

W. Va., Parkersburg—Knights of Pythias plan to erect building.

W. Va., Terra Alta—Knights of Pythias plan to erect \$40,000 building; Richard M. Bates, Jr., Archt., First Natl. Bank Bldg., Huntington.

### Bank and Office.

Fla., Miami—A. L. Sammons, Miami Beach, will erect office building on Collins Ave.; concrete block and stucco; also plans to erect residence.

Fla., Tallahassee—W. C. Hodges will erect bank and office building or hotel.

Fla., Wauchula—Hardee County Trust Co. will erect building; 25x80-ft.; brick; interlocking tile front; 19-ft. ceiling in banking room; marble and mahogany fixtures.

Ga., Atlanta—Haas & Howell, Candler Bldg., will erect building at N. Forsyth and Poplar Sts. for stores and offices; 50x90 ft.; 6 stories; concrete frame; brick and hollow tile walls; tar and gravel roof; concrete, hardwood, marble and tile floors; ornamental terra cotta; interior tile; metal doors; wire glass; mail chutes; ventilators; steel sash and trim; steam heat; city lights; traction elevator; bids opened. Address Heintz, Reid & Adler, Archts., 921½ N. Forsyth St. (Late-ly noted.)

La., New Iberia—Jos. Daigre will remodel Cade Bldg. for offices.

Mo., Kansas City—J. H. Huntzinger, 909 Baltimore St., will erect office building late-ly noted; cost about \$125,000; 30x142-ft.; reinforced concrete; gravel roof; concrete floors; hollow fireproof and interior tile; ornamental terra cotta; wire glass; mail chutes; steel sash and trim; steam heat; electric lights; electric elevator; bids opened about Apr. 1. (See Machinery Wanted—Building Material: Tile; Mail Chutes; Wire Glass; Sash and Trim (Steel); Terra Cotta (Ornamental).)

N. C., Gastonia—Third National Bank will erect building; cost \$200,000 to \$225,000; 50x110 ft.; 7 stories and basement; steel and concrete; fireproof; hollow fireproof and interior tile; metal ceilings; safes; metal doors; wood block and concrete floors; vault; wire glass; mail chutes; ventilators; steel sash and trim; install bank fixtures, etc.; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and Durham, N. C. (Late-ly noted.)

Va., Norfolk—National Bank of Commerce will erect addition to building; 22x137 ft.; 12 stories; steel frame; granite and limestone for first 3 stories; brick above; concrete slab floors; slag roof; extend present steam heating plant; Peebles & Ferguson, Archts., Norfolk; E. W. Minter & Co., 115 Broadway, New York, low bidder at \$322,000.

W. Va., Welch—Drs. Daniel and Hall will erect 5-story building on McDowell St.; 33x100 ft.; cost \$50,000; bids opened Mch. 31.

W. Va., Charleston—C. J. Pearson & Co. will erect business and office building on Quarrier St. between McFarland and Dunbar Sts.; cost \$70,000; 5 stories and basement; reinforced concrete; concrete roof; 53 rooms.

W. Va., Huntington—Jackson County Building & Loan Assn., 512 9th St., will erect building at 9th St. and 6th Ave.; brick and Indiana limestone; 8 stories; fireproof; Meador & Handloser, Archts.

### Churches.

Ala., Birmingham—Beth-El Congregation, Jake Levine, Prest., purchased site at Beach St. and Highland Ave. and plans to erect \$150,000 building; stone; Max Roseman, Jacob Bonfeld, A. Reuben, Louis Plitz and Joe Smolian, Bldg. Comm.

Ala., Birmingham—Ensley Highlands Methodist Church, Rev. L. G. Sturdivant, Pastor, plans to erect building.

Ark., Ozark—First Presbyterian Church plans to remodel building. Address The Pastor.

Ark., Pine Bluff—St. Joseph's Catholic Church, C. B. Bowling and others, Bldg. Comm., will erect building; cost \$80,000; bids opened Mch. 27.

Ark., Texarkana—St. Edward's Catholic Church will erect building at Beech and 4th Sts.; cost \$75,000; brick and stone. Address The Pastor.

Ga., Atlanta—Capitol View Baptist Church, Rev. W. Lee Cutts, Pastor, 45 Athens Ave., will erect church and Sunday school building; cost \$25,000 to \$30,000; brick veneer and hollow fireproof tile; metal roof; wood floors; ornamental terra cotta; metal ceilings; Chas. E. Choate, Archt., Candler Bldg. (Late-ly noted.)

La., Thibodaux—St. Joseph's Church will erect building; cost \$20,000. Address The Pastor.

La., West Monroe—Baptist Church, Rev. J. R. Reynolds, Pastor, will erect building for church and Sunday school; cost \$55,000; Herbert L. Cain, Archt., 12 N. 9th St., Richmond, Va.

Md., Baltimore—Third United Brethren Church, Rev. Albert H. Kleffman, Pastor, Fulton Ave. and Lombard St., will expend \$15,000 to \$20,000 for additions including Bible school auditorium, combined gymnasium and social hall, parlors, heating, etc.

Md., Baltimore—Fulton Baptist Church will erect 2-story brick building on Division St., nr. Gold St.; cost \$35,000. Address The Pastor.

Mo., Kirksville—First Christian Church will erect building; cost \$15,000. Address The Pastor.

Mo., Lockwood—Methodist Church plans to erect building; contain kitchen, dining room and auditorium for community purposes, main auditorium and classrooms to accommodate 500. Address The Pastor.

Md., Rockdale—(R. D. Roslyn)—St. James' Lutheran Church, Rev. Wm. Taber, Pastor, will erect building on Liberty Pike.

Mo., California—Methodist Church will erect brick building; cost \$20,000. Address The Pastor.

Mo., Lebanon—Baptist Church will erect building to replace burned structure; cost \$15,000. Address The Pastor.

Mo., Springfield—W. I. Bodine, Mgr., United Iron Works, will erect building for Mt. Carmel Methodist Church; cost \$11,000; 40x52 ft.; brick; wood floors; Elston, Axon & Russell, Archts. (Late-ly noted.)

N. C., Hamlet—Presbyterian Church will erect building; cost \$30,000; 70x80 ft. including Sunday School department; Gothic architecture; slate and tin roof; probably oak floors; rolling partitions; wire glass; electric lights; heating not decided; H. D. Harrel, Archt., Bennettsville, S. C.; bids opened Mch. 29 or Apr. 10. Address Carolina Construction Co., Hamlet. (Late-ly noted.)

N. C., Rutherfordton—Baptist Church will erect \$35,000 building. Address The Pastor.

N. C., Wilson—First Christian Church will erect building; cost \$7500; brick veneer; asbestos shingle roof; furnace heat. Address T. J. Hackney. (See Mch. Wanted—Organ; Seating; Lighting Equipment; Heating Plant.)

Okla., Muskogee—Church of the Sacred Heart will erect \$150,000 building. Address The Pastor.

Okla., Muskogee—First Baptist Church plans to erect \$250,000 building. Address The Pastor.

Okla., Okemah—First Methodist Church, Rev. A. M. Dupree, Pastor, contemplates erecting \$50,000 building.

Tenn., Bristol—Green Spring Presbyterian Church will receive bids until Apr. 1 to erect building at Green Spring; plans and specifications at office Burnette, Dixon & Burnette, Archts., Bristol.

Tenn., Cleveland—Methodist Episcopal Church, South, will erect addition at Lea St. and Central Ave.; cost \$35,000; will erect Sunday school room, enlarge auditorium of main building, equip gymnasium, etc.

Tenn., Hartselle—Baptist Church, Rev. J. T. Oakley, Pastor, will enlarge building.

Tenn., Knoxville—First Baptist Church, Jos. P. Gaunt, Chrmn. Bldg. Comm., will erect building at W. Main Ave. and Walnut St.; cost \$250,000; invited following Archts. to submit plans: Barber & McMurray, Knoxville; Edw. Daugherty, Nashville; Peebles & Ferguson, Norfolk, Va.; Waddy B. Wood, Washington, D. C.; and Buckler & Fenhagen, 11 E. Pleasant St., Baltimore, Md. (Previously noted.)

Tenn., Memphis—First Baptist Church, Dr. A. U. Boone, Pastor, plans to erect annex to building at Lauderdale St. and Linden Ave.; cost \$50,000; Jones & Furbringer, Archts.

Tenn., Memphis—Court Avenue Presbyterian Church, Dr. H. O. Hofstead, Pastor, is considering erecting 16-story building; 75x150 ft.; concrete and brick; will provide for church auditorium, Sunday school and reading rooms, swimming pool, bowling alleys, etc.; remainder of building for offices; cost about \$600,000.

Tenn., Memphis—St. Paul Methodist Church, Jno. M. Jenkins, Pastor, will erect building; 60x105 ft.; Gothic architecture; brick and stone; slate roof; interior of steel and timber; heating plant, dining room, kitchen and press room for printing church literature in basement; 2-story Sunday school room in rear; H. T. McGee, Archt.; H. P. Childress, Chrmn. Bldg Comm.

Tex., Austin—Metropolitan African Methodist Episcopal Church will erect building; cost \$30,000; 50x80 ft.; brick; will probably let contract on cost plus basis; Gleescke & Harris, Archts., Littlefield Bldg.

Tex., El Paso—Altura Presbyterian Church, Rev. H. C. Schneider, Pastor, will erect first unit of church; cost \$50,000; ultimate cost \$75,000; contain Sunday school rooms, auditorium, gymnasium, etc.

Va., Graham—Methodist Church will erect building; cost \$50,000. Address The Pastor.

W. Va., Huntington—Highlawn Presbyterian Church will erect \$40,000 church at 28th St. and 3rd Ave. Address The Pastor.

W. Va., Huntington—Johnson Memorial Church, Rev. Dr. Jno. S. Jenkins, Pastor, will erect \$40,000 addition; 3 stories; swimming pool in basement; gymnasium on first floor; Sunday school rooms on second floor; Meador & Handloser, Archts. (Previously noted.)

W. Va., Marlinton—Methodist Episcopal

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Church, South, F. M. Sydnor, Chrmn. Bldg. Comm., will let contract Apr. 22 to erect building; 56x109 ft.; Sunday school rooms and auditorium; basement under entire building.

### City and County.

Fla., St. Cloud—Library Building—City plans to erect library building; W. G. King, interested.

La., Shreveport—Fire Station—City Commissioners will receive bids until Apr. 11 to erect fire station at Cotton and Common Sts.; cost \$100,000; 2 stories; 85 ft. front.

Mo., Little Blue—Home—Jackson County, Peter J. Kelly, Clk., Independence, will erect Industrial Home for Negro Boys at county farm; bids opened; White & Dean, Archts., 50 Reliance Bldg., Kansas City.

N. C., Murphy—Jail—Board of County Commissioners will erect jail; Pauly Jail Building Co., St. Louis, will prepare plans.

Okla., Chickasha—Fire Station, etc.—City will vote Apr. 4 on \$50,000 bonds including \$12,000 to install fire alarm system, \$22,000 for fire equipment and \$16,000 for purchasing site and erecting building. Address Mayor Coffman.

Tex., Dallas—Fire Station—City, Louis S. Turley, Fire and Police Comm., will erect fire station in eastern part of Oak Cliff.

Tex., San Antonio—Library—City, O. B. Block, Mayor, will appropriate \$6000 to supplement \$34,000 already available to repair Carnegie Library; Nat. M. Washer, Prest., Library Board.

### Courthouses.

N. C., Charlotte—Board of County Commissioners is considering erecting addition across rear of present courthouse; 3 stories; ultimate plans provide 6 stories; C. C. Hook, Archt.

### Dwellings.

Ala., Birmingham—Gray Bros. will erect 9 dwellings; cost \$16,600.

Ark., Little Rock—Johnson & Dickenson will erect 2-story brick residence at 2201 Gaines St.; cost \$15,000; also 2-story brick residence at 1719 W. 23rd St.; cost \$10,000.

Ark., Monticello—Jos. Harris, of Henry & Harris, will erect \$15,000 residence on Main St.

Ark., Ozark—Garland Hamm will erect 2 bungalows on College Ave.

Ark., Ozark—Prof. Stokes Milton, Denning, will erect residence.

D. C., Washington—Chas. E. Wire, Inc., 1413 H St., N.W., will erect 4 residences at 6312-24 9th St., N.W.; cost \$4500 each; 26x36 ft.; frame; asphaltum shingle roofs; hot air one-pipe furnaces, \$125 each; electric lights; hardwood floors; metal doors; plans and construction by owner. (Lately noted.)

D. C., Washington—Morris Caffritz, 717 14th St., N. W., and J. B. Shapiro will erect 11 2-story brick dwellings at 800-20 Crittenden St., N. W.; cost \$60,000; construction by owner. (Lately noted.)

D. C., Washington—Hoover & Harrison will erect 2-story frame buildings at 3315 Woodley Rd., N. W.; cost \$12,000; construction by owner.

Fla., Miami—Simon M. Snook will erect dwelling and garage on S. W. 4th St., Brickell addition; cement block.

Fla., Tampa—Thos. H. Abbey plans to erect 18 bungalows and garage on S. Howard Ave.; cost about \$5000 each; also considering 2 additional stories to Riverview Apartments.

Fla., Tampa—A. Fernandez and Jos. Castro will erect 8 dwellings on 22nd St. between 9th and 14th Sts.; cost \$25,000.

Fla., Tampa—Theo. Krumm, Rosa Villa Park, plans to erect number of bungalows on Bay Shore Blvd.; Schaffer & Franks, contrs. for bitulithic work for sidewalks, etc.

Fla., West Palm Beach—Maj. Barclay Warburton, Philadelphia, Pa., will erect residence; cost \$40,000; 18 rooms and 5 baths; Italian architecture; Addison Mizner, Archt., Palm Beach.

Ga., Atlanta—Mrs. Eva M. Harper will erect two 2-story frame duplex dwellings at 124 Barnett St.; cost \$7000 each.

Ga., Atlanta—F. H. Turnipseed will erect two 1-story dwellings at 149 and 151 Prado St.; cost \$5000 each; brick veneer.

Ga., Atlanta—Louie D. Newton, Editor, Christian Index, purchased site in Rogers subdivision and plans to erect residence.

Ga., Atlanta—Ben R. Padgett, Mgr., L. W. Rogers & Realty Trust Co., will erect residence in Rogers subdivision; cost \$20,000.

Ga., Atlanta—B. Graham West, City Comptroller, purchased site in Rogers subdivision and plans to erect residence.

Ga., Atlanta—F. C. Lyle will erect 3 residences at 182, 186 and 190 Atlanta Ave.; cost \$5500 each; 1 story; brick veneer.

Ga., Decatur—Marcus L. Brown is developing Red Top subdivision between Agnes Scott College and Emory University; will erect dwellings; 1 and 2 stories; brick veneer and frame.

Ky., Ashland—Lon Rogers will erect number of residences; cost \$5000 to \$7500 each; brick; oak floors; hollow fireproof tile; plaster board; heating not decided; Richard M. Bates, Jr., Archt., Huntington, W. Va.

La., New Orleans—H. P. Winton, Day Lumber Co., purchased site at Palmer Ave. and La Salle St. and will erect residence.

Md., Baltimore—City & Suburban Realty Co., Harford Rd. nr. Hamilton Ave., will erect 9 dwellings on Birchwood, Elmwood, Walnut and Hemlock Aves., nr. Beechland and Evergreen Aves.; cost \$30,000.

Md., Baltimore—Geo. Gebelein, 828 N. Chester St., will erect residence and garage at 3510 Liberty Heights Ave.; cost \$12,000; 2 stories; brick.

Md., Baltimore—Geo. R. Morris, Morris Bldg., Charles and Saratoga Sts., will erect 2 cottages and garages at 3600 Grantley Rd. and 3401 Copley Rd.; 2 stories; frame; total cost \$12,000.

Md., Baltimore—Wm. J. Peters, Carroll Rd., nr. Wirt Ave., will erect 12 dwellings at 1301-23 W. 42nd St.; cost \$24,000; 2 stories; brick.

Md., Baltimore—Sadie M. Nichols will erect dwelling and garage at 3508 Calloway Ave.; cost \$12,000; 2 stories; frame; 34.2x50.2 ft.; slate roof; hot water heat; Herbert C. Alken, Archt., 4115 Ridgewood Ave.; construction by owner.

Md., Baltimore—Geo. H. Jarboe, 4001 Frederick Ave.; will erect 3 2-story brick dwellings 248-52 Monastery Ave.; cost about \$10,000.

Md., Baltimore—J. Hurst Purnell, 4314 St. Paul St., purchased property at North Ave. and Bentalou St. and plans to erect 155 dwellings; porch fronts.

Md., Baltimore—Builders Trade Assn., Inc., 2 E. Lexington St., will erect 14 dwellings at 301-29 Singer Ave.; cost \$40,000; 2 stories; brick.

Mo., Kansas City—G. F. Beach, Beach-Whitman Co., purchased site at 5531 Crestwood Dr. and will erect residence; colonial type.

Mo., Kansas City—L. S. Davis, 501 Waldheim Bldg., will erect residence; brick and hollow tile; tile roof. (Lately noted.)

Mo., St. Louis—Henry Babcock purchased lot on Belmar Blvd. and plans to erect \$20,000 residence.

Okla., Muskogee—Robt. Bell, 412 S. 12th St., will erect brick stucco dwelling; cost \$10,000.

Okla., Oklahoma City—Ellis, Joyce & Nicholson will erect dwelling and garage at 3005 N. Hudson Ave. and frame building and garage at 1205 W. 34th St.; cost \$5000 each.

S. C., Columbia—Fred S. Campbell will erect residence in Wales Gardens; cost \$15,000; 8 rooms.

Tenn., Memphis—R. E. Palmer will erect 3 brick dwellings at 2157-61-67 Jefferson St.; cost \$3500 each; brick; 5 rooms.

Tenn., Morristown—W. G. Folknow will erect residence on farm near Morristown.

Tenn., Waverly—A. D. Butterfield is considering erecting \$20,000 residence on Fort Hill; will terrace slope, construct driveways, etc.

Tex., Austin—Dr. Geo. C. Butte will erect residence at 18th and Pearl Sts.; cost \$10,000; 2 stories; frame; Giesecke & Harris, Archts., Littlefield Bldg.

Tex., Austin—Dr. Frank C. Gregg will erect residence in Enfield addition; cost \$20,000; 2 stories; tile and stucco; Giesecke & Harris, Archts., Littlefield Bldg.

Tex., Houston—Embry Gillette will erect 2 dwellings on Sul Ross Ave. nr. Mulberry St.; 5 and 6 rooms; cost \$9500; erect \$600 3-room dwelling on Hadley Ave.; also erect 3 other small dwellings; total cost \$2000.

Tex., Houston—John T. Crotty will erect \$50,000 residence on Longfellow Ave. at Main St., in Shadyside addition; 2 stories and attic; hollow tile and brick veneer; garage.

Tex., San Antonio—N. C. Thorman will erect 11 bungalows on E. French Pl.; total cost \$30,000.

Tex., San Antonio—Frank G. Huntress will erect residence; H. S. Green, Archt.; bids opened.

Tex., San Antonio—Henri Maruchau will erect residence on Mistletoe Ave. between Main Ave. and Howard St.; colonial type; frame; 7 rooms and sleeping porch; Smith & Kelly, Archts.

Va., Blacksburg—Frank Gardner purchased site on Roanoke St. and will erect residence.

Va., Graham—Fullen Thompson and Dudley Thompson will erect 5 residences on College Hill.

Va., Richmond—Miss L. A. Helzham, 1508 Brook Rd., will erect residence at 3328 Stuart Ave.; cost about \$10,000.

Va., Richmond—H. A. Phillips will erect 5 residences at 2611-19 Taylor St.; cost \$25,000, also three 2-story brick dwellings, 2604-S Chaffin St.; cost \$15,000.

Va., Richmond—J. Hunter Frischkorn will erect residence on Monument Ave., west of Belmont Ave.; Colonial architecture; G. Herbert French, Archt.

Va., Richmond—L. E. and J. S. Harvie will erect 100 dwellings in East End.

Va., Richmond—Davis Bros. will erect 20 dwellings including 6 on 5th Ave., Highland Park; stucco; 6 rooms, cost \$4950 each; also 4 on W. Main St.; brick; 6 rooms; 4 on S. Elm St.; cost about \$6000 each; also erecting three 7-room stucco dwellings on Carolina Ave.; cost \$6000 each; will erect 3 dwellings on the boulevard; 9 rooms and 2 baths; cost \$22,500.



Va., Richmond—Linder & Phillips will erect 12 dwellings in West End in addition to 10 already under construction; total cost \$150,000; 6 rooms; brick; also plans to erect 2 dwellings on Wilmington Ave. for individual owners.

Va., Richmond—P. S. Lubinski Co. will erect 20 dwellings on Madison St.; cost \$100,000; 6 rooms.

Va., Richmond—Realty & Finance Corp., F. F. Hough, Prest., will erect several residences on Garland Ave., North Side; 8 rooms; tile baths; hardwood floors; hot water heat.

Va., Richmond—F. B. Walker, 4 S. 10th St., is erecting 4 2-story dwellings on Haynes Ave.; 2 stories; 24x32 ft.; construction by owner.

Va., Roanoke—J. R. Pace will erect residence and garage at 206 Wasent Ave.; cost \$11,170.

W. Va., Huntington—C. H. Wetzel will erect residence on 8th St.; cost \$10,000; 2 stories; brick.

W. Va., Wheeling—E. R. Gamble will erect residence and garage at Woodlawn; cost \$10,000; brick; M. F. Giesey, Archt.

### Government and State.

Ga., Savannah—Gun Sheds and Stables—National Guards, R. J. Travis, Col., 118th Regiment, opened bids to military stables and gun sheds adjacent to Atlantic Coast Line yards; Guerry & Johnson, lowest bidders \$12,085.

### Hospitals, Sanitariums, Etc.

Ala., Mobile—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., will receive bids until April 18 to construct elevator enclosure, remodeling, etc. at U. S. Marine Hospital; copies of drawings and specifications from office Custodian, Mobile, and office Supervising Archt.

Ala., Tuscaloosa—Tuscaloosa Hospital Assn., Dr. L. O. Dawson, Chrm. Bldg. Comm., will erect \$100,000 hospital on University Ave.; brick; Indiana limestone trim; Colonial design; 3 stories; 55 to 60 beds; vacuum heat; indirect lighting; cork carpet in halls and stairs; heating plant in separate building; D. O. Whildin, Archt.; E. F. Hettrick, low bidder, both Birmingham; Cole Supply Co., Tuscaloosa, low bidder for plumbing and heating; Reeves-Ellebash Electrical Co., Tuscaloosa, low bidder, electrical wiring. (Lately noted.)

Mo., Springfield—J. A. McCoy is interested in erection of \$100,000 sanatorium about 12 mi. from Springfield.

Okla., Muskogee—City, W. W. Gilbert, Clk., will receive bids until April 1 to erect city hospital building; cost \$165,000; plans and specifications from offices of City Clerk, Muskogee, and Chas. P. Nieder, Archt., Empress Theater, Oklahoma City.

S. C., State Park—Executive Committee of State Board of Health, Dr. Jas. A. Hayne, Health Officer, Columbia, will erect infirmary; cost \$10,000; accommodate 20 patients.

Tex., Livingston—Dr. H. Bergman will erect hospital; cost \$15,000; 25 beds; frame; shingle roof; pine floors; hot air heat; electric lights; Geo. M. Smith, Archt. Address owner. (Lately noted.)

Va., Lynchburg—Virginia Baptist General Assn. will erect hospital; 3 units; 200 beds; S. S. Johnson, Archt. (Previously noted.)

W. Va., Hopemont—State Board of Control, Jas. S. Lakin, Prest., Charleston, will receive bids until May 6 to erect State Tuberculosis Sanatorium; frame; 285x41 ft.; 2 stories, finished attic and basement, connected with present hospital building and dining hall by fireproof corridors about 72

ft. long and 11 ft. wide; Warne, Tucker & Patterson, Archts., Charleston; plans and specifications from State Board of Control.

### Hotels.

Ala., Birmingham—E. M. Elliott will erect hotel at 5th Ave., north and 24th St.; cost \$100,000; 3 stories; fireproof; construction to permit additional stories later.

Fla., Miami—F. A. Stakemiller will erect Hermitage Hotel; 3 stories; fireproof; G. L. Miller Bond & Mortgage Co. placed bond issue of \$32,500 toward financing construction.

Fla., Miami—Jno. H. Irwin, Philadelphia, Pa., purchased site in Alton Beach on Lincoln Rd.; plans to erect apartment house or hotel.

Fla., West Palm Beach—Poinsettia Hotel, Jas. P. Cresswell, Prop., will erect additional story to 3-story building and provide roof garden, dance floor and 75 additional rooms.

Fla., West Palm Beach—G. Lloyd Preacher & Co., Augusta and Atlanta, Ga., are reported as preparing plans for hotel; cost about \$1,500,000.

Md., Baltimore—Hotel Emerson, Wm. H. Parker, Mgr., purchased building on Baltimore St., adjoining hotel and plans to convert 2nd floor into ball room; Joseph Evans Sperry, Archt., Calvert Bldg.

N. C., Albemarle—Dr. W. C. Fitzgerald will erect hotel at North and N. Second Sts.; 103x97 ft.; 5 stories; 40 rooms; 40x40 ft. lobby with marble or tile floors.

Tex., Beeville—A. F. Rees will erect hotel; fireproof.

W. Va., Welch—S. E. Carter and others plan to erect hotel; cost \$200,000; 5 stories and basement; 85x72 ft.; brick; stone trim; wood floors; Fred T. Ley & Co., Archts., 19 W. 44th St., New York. (Previously noted.)

### Miscellaneous.

N. C., Asheville—Undertaking—Robt. J. Lewis will erect undertaking establishment on College St.; cost \$20,000.

N. C., Greensboro—Clubhouse—Greensboro Country Club, Pierce Rucker, Prest., will erect clubhouse; cost about \$50,000; 2 stories and basement; tentative plans by Chas. Barton Keen, Philadelphia, Pa. (Previously noted.)

Va., Richmond—Clubhouse—Motor Club of Virginia will erect addition to building in Westhampton; provide dining rooms, dance pavilion 78x60 ft., remodel kitchens, etc.; G. Herbert French, Archt.

### Railway Stations, Sheds, Etc.

Ark., McGehee—Missouri-Pacific R. R., E. A. Hadley, Ch. Engr., St. Louis, will erect passenger and freight station in connection with other improvements.

Fla., Kelsey City—East Coast Finance Corp., Harry S. Kelsey, Prest., plans to erect railroad station; Spanish design.

Miss., Webb—Yazoo & Mississippi Valley R. R. M. B. Morgan, Dist. Engr., Memphis, Tenn., will erect passenger station.

### Schools.

Ark., Fort Smith—Board of Education, C. J. Tidwell, Supt., will erect building; cost \$70,000; Chas. W. Dawson, Archt., Muskogee, Okla. (Lately noted.)

Fla., Tampa—Hillsborough County Board of Public Instruction, J. E. Knight, Secy., will receive bids until Mch. 30 to erect Tampa

Heights Grammar School; cost \$75,000; 16 classrooms; brick; composition built-up roof; wood floors; gas steam heat; electric lights; also receives bids until same date to erect addition to Gary School; cost \$15,000; plans and specifications at office M. Leo Elliott, Archt. (Lately noted.)

Ga., Atlanta—City Board of Education will erect 2 senior high schools, 4 junior high schools and 12 elementary schools; fireproof; \$4,000,000 bonds available; A. Ten Eyck Brown, Supervising Archt., Forsyth Bldg.; other local architects to be selected; bids opened for portion of work about June 1. Address Mr. Brown. (Lately noted.)

Ky., Hickman—City, Mayor T. T. Swayne, will vote April 1 on \$25,000 school bonds.

La., Baton Rouge—East Baton Rouge Parish School Board will receive bids until Apr. 3 to erect Dufrocq Street School; fireproof; 20 rooms; Wm. T. Nolan, Archt., New Orleans; also plans to erect negro school; Edw. F. Neild, Archt., Shreveport.

La., Haynesville—School Dist. voted \$125,000 bonds to erect building. Address Board of Education.

Md., Cumberland—Board of Education, F. F. Webb, Supt., will receive bids until Apr. 11 to erect school building; 1 story and basement; 200x200 ft.; brick and stone; Holmboe & Hogue, Archts., 653 Empire Bldg., Clarksburg, W. Va. (Previously noted.)

Miss., Aberdeen—Monroe County Board of Supervisors ordered election April 3 on bonds to erect consolidated school at Splunge.

Miss., Leakesville—Greene County Agricultural High School will erect dormitory; brick or hollow tile; accommodate 60 students; H. M. Ivy, Supervisor of high schools.

Mo., Versailles—Board of Education will receive bids until Apr. 5 to erect grade school building; cost \$30,000.

Mo., Webb City—School District will vote Apr. 4 on \$15,000 bonds to remodel buildings; Claude Ball, Secy., School Board.

N. C., Asheville—Asheville Normal & Associated Schools, Dr. Jno. E. Calfee, Prest., will erect infirmary; 32x50 ft.; 3 stories and basement; accommodate 25 patients; 12 bed ward on first floor; 6 rooms on second with 2 beds each; W. H. Lord, Archt.

N. C., Asheville—Turkey Creek Consolidated School Dist. will erect building; sold \$12,000 bonds. Address County Board of Education.

N. C., Denton—Denton School Dist. will vote April 18 on \$30,000 bonds to erect school. Address Dist. School Trustees. (Previously noted.)

N. C., Franklin—School Board, Jno. S. Trotter, Treas., will erect building; brick; metal ceilings; plaster board; steam heat; electric lights; Z. W. Conly, Archt. Address L. A. Allen. (Lately noted to have voted \$50,000 bonds.)

N. C., Kernersville—School Board will erect brick addition to building; bids opened Mch. 29; plans and specifications at office W. C. Northrup, Archt., 617 Wachovia Bank Bldg., Winston-Salem; R. A. Sullivan, Supt. of Schools.

N. C., Rock Ridge—Board of Education, C. L. Coon, Supt., Wilson, will erect three 6-room rural school buildings in Wilson County and 16-room school at Rock Ridge; Chas. C. Wilson, Archt., First Natl. Bank Bldg., Gastonia, N. C.; Davis Bldg., and Palmetto Bldg., both Columbia, S. C.; bids opened.

N. C., Sanford—Sanford School Dist. voted \$100,000 bonds; plans to use portion to erect annex to East Sanford School and later erect building. Address Board of Education. (Lately noted.)

Okla., Duncan—Duncan School Dist. will vote on \$35,000 bonds for additions to 2 ward schools. Address Board of Education.

Okla., Edmond—City is considering \$150,000 bond issue for schools. Address Board of Education.

Okla., Kaw — School Board, Jno. E. Hoefer, Clk., will erect school building; Redlich & Patterson, Archts., Stillwater; bids opened. (\$23,000 bonds previously voted.)

Okla., Red Fork—School Dist. plans to erect building at Garden City; election Mch. 28, on \$50,000 bonds. Address Board of Education.

Okla., Talhina—School Board will erect \$25,000 high school; Chas. W. Dawson, Archt., Muskogee. (Lately noted.)

Okla., Thomas—Thomas School Dist. will erect high school building; cost \$65,000; 98x149.6 ft.; brick and stone; asphalt roof; yellow pine and cement floors; hollow fireproof tile; metal ceilings; vaults; ventilators; steel sash and trim; steam heat; electric lights; A. J. Love & Co., Archts., Tulsa; bids opened April 3. Address Terry Tresner, Clerk, Thomas. (Lately noted.)

S. C., Timmonsville—Timmonsville School Dist. Trustees, Dr. W. R. McLeod, Chrmn., will call election on \$40,000 bonds to erect 2 schools.

Tenn., Bristol—School Board will erect 8-room addition to Anderson Street School; cost \$12,000 to \$15,000; A. B. Whittaker, Supt. of Education.

Tenn., Clarksville—City, W. B. Young, Recorder, will vote April 6 on bonds not to exceed \$150,000 to erect additions to 2 school buildings; R. H. Hunt, Archt., James Bldg., Chattanooga.

Tenn., Morristown—Morristown Normal & Industrial College, Dr. Judson S. Hill, Prest., will erect 2 dormitories and 1 dining hall; cost \$150,000; brick; asphalt or tar and gravel roof; oak floors; steam heat; electric lights; Barber & McMurray Archts., Knoxville. Address Dr. Hill. (Lately noted.)

Tex., Chillicothe—Chillicothe Independent School Dist. voted \$60,000 bonds to erect high school. Address Board of Education.

Tex., Cisco—City will expend \$50,000 to repair and equip building for Midland Christian College. Address Secretary, Chamber of Commerce.

Tex., Garwood—Garwood Independent School Dist. will erect building; cost \$25,000; 100x80 ft.; partial basement; mill construction; built up asphalt roof; concrete and pine floors; hollow fireproof tile; metal ceilings; ventilators; steel sash and trim; hot air heat, \$2000; electric lights, \$750. Address Paul G. Silber & Co., Archts., 331 Bedell Bldg., San Antonio. (Lately noted.)

Tex., Groesbeck—Groesbeck School Dist. voted \$60,000 bonds to erect and equip school buildings. Address School Board.

Tex., Jacksonville—Jacksonville Independent School Dist. will erect building; brick and wood; details not determined; \$45,000 bonds available. Address Chas. F. Adams. (Lately noted.)

Tex., Ranger—Board of Education will erect high school building; cost \$120,000; 170x125 ft.; brick; steel and reinforced concrete; composition built up roof; concrete and wood floors; vapor heat; electric lights; Jno. Tulloch, Archt., Sherman; bids opened April 10. Address V. V. Cooper, Ranger. (Lately noted.)

Tex., Saint Jo—School Board, C. W. Hemphill, Prest., will erect 3-story brick school building; cost \$38,000; bids opened Mch. 27; C. H. Page & Bro., Austin, and Voecker & Dixon, Morgan Bldg., Wichita Falls, Archts.

Tex., Somerset—City will erect school building; \$17,000 bonds available. Address Prof. A. D. Haliburton.

Tex., Taylor—School Board will erect building; cost \$130,000; 2 stories; concrete frame with brick face; steam heat; bids in May; Giescke & Harris, Archts., Littlefield Bldg., Austin. (Lately noted.)

Tex., Waco—Board of Education, B. B. Cobb, Supt., will erect junior high school, negro high school and ward school for negroes in East Waco; also erect additions to present schools; \$400,000 bonds voted; Milton W. Scott, Archt. (Lately noted.)

Tex., West—Board of Education plans to call election on bonds to erect high school; O. W. Stewart, Supt. of Education.

Va., Harrisonburg—Harrisonburg State Normal School, Dr. S. P. Duke, Prest., will erect dormitory; complete Alumnae Building and erect \$25,000 apartment house; 24 rooms; accommodate 50 students.

Va., Lexington—Virginia Military Institute, Gen. E. W. Nichols, Supt., will erect alumni hall.

Va., Richmond—City School Board will erect John Armstrong High School for negroes at Leigh and Prentiss Sts.; cost \$163,902.

Va., Suffolk—Board of Education will erect \$100,000 high school; 2 stories and basement; 150x80 ft.; semi-fireproof; brick, concrete and steel; Chas. M. Robinson, Archts., Richmond. (Lately noted.)

W. Va., Chesapeake—Chesapeake Special School Dist. Trustees will erect high school; voted \$45,000 bond issue. (Lately noted.)

W. Va., Fairmont—Board of Education, Fairmont Independent Dist., M. M. Debolt, Secy., will receive bids until Apr. 10 to erect gymnasium on grounds of high school; plans and specifications at office Board of Education, Professional Bldg., and office R. A. Gillis, Archt., Fleming Bldg. (Lately noted.)

W. Va., Logan—County Board of Education plans to erect 12 school buildings in county; cost \$250,000; Richard M. Bates, Jr., Archt., First Natl. Bank Bldg., Huntington.

W. Va., New Martinsville—Magnolia School Dist. will vote April 4 on \$148,000 bond issue. Address County Board of Education.

### Stores.

Fla., Miami—A. E. Bell will erect store building at S. W. Third St. and Miami Ave.; 95x50 ft.; cost \$10,000; tile and concrete; contain 4 stores and garage.

Ga., Atlanta—Mrs. J. M. High will erect addition to building at Whitehall and Hunter Sts.; cost \$14,000; brick.

Ga., Savannah—J. C. Slater will erect building at W. Broad St. and Congress La. for occupancy of Heidt Hardware & Implement Co.; cost \$30,000; 3 stories; 22.6x120 ft.; brick; Levy & Clarke, Archts., Congress Bldg.

Md., Baltimore—Isaac L. Livingston, 11 N. Gay St., and Isaac Berman purchased building at 12 and 14 N. Gay St. and will expend \$50,000 to remodel for stores and offices; bowling alley in basement; E. G. Blanke, Archt., 532 N. Calvert St.

N. C., Asheville—J. A. Penland will erect business building at Broadway and Lexington Ave., cost \$10,000.

N. C., Charlotte—E. D. Latta, Charlotte Consolidated Construction Co., plans to erect 3 store buildings on S. Tryon St. between 2nd and 3rd Sts.; 3 stories and basement; press brick fronts.

N. C., Rutherfordton—C. W. Keeter and

C. F. Geer will erect business block on Main St.; brick.

N. C., Southern Pines—O. L. Aufderheide, West New York, N. J., is reported to erect business building on Broad St.

N. C., Wilson—R. E. Hagan will erect building on Barnes St. to burned structure.

Tenn., Carthage—H. B. McGinness will erect 2-story brick building; first floor for stores; second, offices.

Tenn., Johnson City—W. F. Carter will erect business building on W. Market St.; 80 ft. frontage; 4 stores on first floor; offices on second.

Tex., Cisco—A. L. Mayhew will erect store building to replace structure burned at loss of \$35,000; fireproof.

Tex., Cisco—Alexander Ward will erect building to replace structure burned at loss of \$30,000; fireproof.

Va., Graham—Mrs. C. H. Moore will erect store building on Main St.

Va., Richmond—Fritz Sittlerding, V.-P., Virginia Ry. & Power Co., will erect building at 12th and Main Sts.

W. Va., Charleston—Andrew Nomar will erect building at Park and Central Aves.; 50x80 ft.; 2 stories; brick; 2 storerooms and 2 apartments of 7 rooms and bath each.

W. Va., Huntington—Boxley Bros. will erect brick buildg at 8th St. and 6th, alley; contain 2 storerooms, 16x80 ft. and garage 50x70 ft.; 1 story; brick.

W. Va., Huntington—W. E. Deegans will erect building at 9th St. and 6th Ave.; 1 story; 80x90 ft.; 8 storerooms; Meador & Handloser, Archts.; also plans to erect 2-story brick building on 4th Ave. adjoining Salvation Army Bldg.; 50x80 ft.; storerooms on first floor; offices on second.

W. Va., Huntington—Jno. S. Farr will erect building on 4th Ave. near Chamber of Commerce Bldg.; 3 stories; brick; 30x200 ft.; Meador & Handloser, Archts.

W. Va., Huntington—H. E. Hines, of Hines-Bailey Corp., will erect fireproof building adjoining Westinghouse Bldg.; 40x70 ft.; 3 stories; reinforced concrete and steel; Meador & Handloser, Archts.

W. Va., Huntington—A. Solof, Box 586, will erect 2 buildings for stores and offices; cost \$200,000; one, 70x110 ft.; 4 or 5 stories; other, 50x100 ft.; 3 or 4 stories; fireproof; brick and lumber; hardwood and cement floors; hollow fireproof and interior tile; metal ceilings; plaster board; ornamental terra cotta; safes; vaults; vault lights; ventilators; heating and lighting not determined; select architect April 1; bids opened April 15 to 25. (Lately noted.)

W. Va., Logan—United Grocery Co., will erect building; cost \$150,000; 4 stories; brick, reinforced concrete and Indiana limestone; ground floor for 3 stores; upper stories for apartments; Mr. Sinclair, Archt., Charleston.

W. Va., Welch—Richard M. Bates, Jr., First Natl. Bank Bldg., Huntington, is preparing plans for \$50,000 store and office building.

### Theaters.

La., Monroe—Saenger Amusement Co., New Orleans, will rebuild Lyceum Theater on Desiard St.; cost \$15,000 to \$20,000; Chas. David, Archt., New Orleans.

N. C., Lexington—H. B. Varner will erect theater on S. Main St.; 80x120 ft.; cost \$125,000 to \$150,000; fireproof; 3 stores on Main St.; theater in rear; office rooms on second floor; seating capacity of theater 1500 including balconies and loggias; Harry Barton, Archt., Greensboro.

Tex., Houston—Interstate Amusement Co.,

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Karl Hoblitzelle, Prest., Chicago, will erect New Majestic Theater at Rusk Ave. and Travis St.; cost about \$1,000,000; Jno. Ebersson, Archt., Chicago.

### Warehouses.

Ga., Atlanta—Geo. M. Hope will erect warehouse at 508-10 Whitehall St. for occupancy of International Harvester Co., 3 stories,

cost \$100,000; 1 story brick structure in rear for service station for tractors.

Md., Baltimore—John H. Dockman, 810 Light St., and others will erect 5-story brick warehouse at 17-25 Hughes St.; cost \$25,000.

Mo., St. Louis—Levering Investment Co. will erect warehouse at 12th St. viaduct and Gratiot Sts.; cost \$200,000; 3 stories; 110x180 ft.; plans 2 additional stories later; Preston J. Bradshaw, Archt., construction under sub contracts. (Lately noted.)

## BUILDING CONTRACTS AWARDED

### Apartment-Houses.

Ark., Pine Bluff—Harry Hanf will erect apartment house; cost \$10,000; 4 apartments; frame; Johns Manville roof; hardwood floors; M. Seligman, Archt., Irwin & Weaver, Contrs. (Lately noted.)

Fla., Miami—Henry Leavitt will erect apartment house at Sixth St. and Washington Ave.; 16 suites; 2 stories; porches for each apartment; concrete block and stucco; cost \$20,000; A. L. Sammons, Archt.-Contr.; Miami Beach; also erect apartment house on Collins Ave. nr. Second St.

Ga., Atlanta—Southeastern Holdings Co. will erect apartment house at Juniper and 8th Sts., cost \$135,000; 3 stories and basement; fireproof; reinforced concrete; G. Lloyd Preacher & Co., Archts., Healey Bldg., A. V. Gude Co., Contr.

Md., Baltimore—Wentworth Apartment Co. will erect 3-story fireproof addition to building at University Parkway and Wyman's Park; cost \$70,000; 60x81 ft.; slate roof; steam heat; E. H. Glidden, Archt., West Construction Co., Contr., both American Bldg.

Mo., Kansas City—Ralph Realty Investment Co., B. Adler and others, will erect 11 six-apartment flats on 43rd St. between Oak and McGee Sts.; cost \$300,000 to \$400,000; Larn Building Co., Contr.

N. C., Winston-Salem—Dr. Jno. Bynum will erect apartment house on W. 6th St. between Poplar and Spring Sts.; cost \$10,000; 2 stories; frame; 4 apartments of 5 rooms each; J. L. Crouse, Contr., Greensboro.

### Association and Fraternal.

Ark., Texarkana—Elks Lodge No. 399, N. P. Sanderson and others, Bldg. Comm., will remodel 2-story building on Vine St.; cost \$35,000; 50x140 ft.; 3 stories; brick, concrete, steel and terra cotta; Johns Manville roof; concrete, oak and pine floors; metal ceilings; interior tile; metal doors; wire glass; ventilators; steel sash and trim; Witt, Selbert & Halsey, Archts.; Hinerman & Quinn, Contrs., both Texarkana, Tex. (Lately noted.)

Tex., Melissa—Masonic Lodge will erect building; 2 stories; brick; contract let.

W. Va., Parkersburg—Board of Governors, State Masonic Home, A. C. Nadenbousch, Secy., will complete building now under roof; cost \$124,879; H. Rus Warne, Archt., Masonic Temple, Charleston; R. R. Kitchen & Co., Contrs., Wheeling.

### Bank and Office.

Fla., Jacksonville—Bank of South Jacksonville, Judge H. P. Phillips, Prest., will remodel and erect additional story to 1-story building at St. John's and Henricks Aves., South Jacksonville; install manganese steel vaults 10x12 ft. in 12 in. concrete wall; remodel building 44x70 ft.; Spanish architecture; Mark & Sheftall, Archts., Jacksonville; Thos. H. Evans and W. R. Winston, Contrs., South Jacksonville. (Previously noted.)

Mo., Rocheport—Rocheport Bank will erect building; C. D. Crist, Contr., Columbia.

N. C., Charlotte—Professional Building Co., J. H. Little, Chrmn. Bldg. Comm., will erect Professional Building; cost \$225,000; 8 stories; 94.6x75 ft.; fireproof; brick, terra cotta and steel; Barrett 20 year roof; tile, marble and maple floors; steam heat; electric lights; 3 passenger elevators; \$20,000; hollow fireproof tile; interior tile; ornamental terra cotta; steel sash and trim; vault lights; ventilators; Louis H. Ashbury, Archt.; J. A. Jones Construction Co., Contr.; Walker-Tompkins Co., plumbing; Atlantic Marble & Tile Co., marble and stone work; D. A. Grinnell, heating; Horne's Nest Electric Co., electric wiring; Otis Elevator Co., elevators. (Lately noted.)

### Churches.

Ark., Imboden—Methodist Episcopal Church, South will erect building; cost \$16,000; 46x73 ft. with basement and balcony; brick on concrete foundation; composition roof; concrete and wood floors; metal ceilings; rolling partitions; hot air heat, \$300; electric lights. Address J. F. Glover, Archt.-Contr.

Fla., Plant City—First Baptist Church, W. C. Wells, H. M. Kilgore and W. B. Her-ring, Bldg. Comm., will erect building; cost about \$90,000; Herbert L. Cain, Archt., Richmond, Va.; L. C. Fallin, Supervising Contr.

Ga., West Point—First Presbyterian Church will erect building, cost \$15,000; brick; West Point Iron Works, Contr.

Ky., Frankfort—St. John's A. M. E. Church, Jno. H. Guy, Chrmn. Bldg. Comm., will erect annex at Clinton and Lewis Sts.; cost \$14,000; L. R. Oberwarth, Archt.; Thos. L. Brooks, Contr. (Previously noted.)

Okla., Henryetta—Methodist Episcopal Church, South will erect church and educational institute; cost \$100,000; 90x90 ft.; brick; hardwood floors; metal ceilings; steam heat; electric lights; Raymond Kerr, Archt.; B. A. Jackson, Contr. (Lately noted.)

S. C., Rock Hill—First Presbyterian Church will erect addition for Sunday school rooms; cost \$50,000; accommodate 800; contract let.

### Dwellings.

Fla., Anna Maria—H. C. Drummond, Lakeland, has contract to erect 4 dwellings; also plans to erect one for self.

Fla., Tampa—A. W. Perkins, Prest., Bd. of Trade, will erect residence on Bayshore Blvd.; 2 stories; brick; tile baths; verandas; Fred J. James, Archt.; J. H. Drew, Contr.

Ga., Atlanta—G. G. Long will erect 1-story frame duplex dwelling at 271 Atwood Ave.; cost \$10,000; two 1-story frame dwellings at 46 and 50 Lexington Ave.; cost \$6,000 each; two 1-story duplex dwellings at 115 and 117 Beecher St.; cost \$10,000 each; Long Construction Co., Contr.

Ga., Savannah—Jos. O'Brien will erect residence at Habersham St. and Estill Ave.;

46 ft. front with 12 ft. sun parlor porch; cost \$18,000; garage; frame of Oregon fir; exterior of face brick; Snedeker Co., Contr.

Md., Baltimore—Susan W. Smith, 3525 Falls Rd., will erect seven 2-story brick dwellings at 4031-43 Falls Rd.; 14x51 ft.; furnace heat; cost \$17,000; Jno. J. Freund, Archt., 1307 St. Paul St.; Wm. J. Jean, Contr., 3420 Cedar Ave.

Md., Baltimore—Dr. Alan C. Sutton, 3212 Abell Ave., will erect residence at Pimlico Rd. and Linwood Ave., Mt. Washington; cost \$20,000; 16 rooms; 2½ stories; stucco; Haskell & Barnes, Archts., 301 N. Charles St.; Alexander Schratke, Contr., N. Belair Ave.

Md., Baltimore—Kathryn S. Tregellas and Jno. J. Tregellas, 305 Calvert Bldg., will erect 3 dwellings; cost about \$10,000; one 3 stories and two 2 stories; frame; No. 1 Bangor slate roofs; oak floors; hot water heat; electric lights; Turner Architectural Service Co., Archt., Central Savings Bank Bldg.; H. C. Tegeder, Contr., Towson Manor, Md. (Lately noted.)

Md., Cumberland—E. G. Marshall Co. will erect 3 bungalows; cost \$7,000 each; 22x26 ft. and porches; two, Pentex brick; one ough texture brick; pine floors; Bird American turn shingle roof or equal; construction y owner. Address J. B. Brower, Jr., Box 93. (See Machinery Wanted-Heating Plant; Plumbing; Electric Fixtures.)

Mo., St. Louis—Mrs. H. F. Blume will erect residence on Northmoor Dr. Northmoor Park; contract let.

Mo., St. Louis—Mrs. D. R. Russell, 5924 McPherson St., will erect residence in Northmoor Park, University City; cost \$18,000; 25x70 ft.; tile walls and frame interior; slate roof; oak floors; hot water heat, \$1500; E. W. Lueke, Contr., 6919 Plateau St. Address Hugo K. Graf, Archt., 1517 Chemical Bldg.

Tenn., Johnson City—Stanyarne Little, Chas. W. Dickey and Miller Bros. Co. will erect 25 dwellings in Southwest addition; cost about \$200,000; brick veneer and stucco; construction by Mr. Dickey.

Tex., Houston—W. S. Farish will erect residence and garage; cost \$72,500; 2 stories; hollow tile; Russell Brown Co., Contr.

Tex., Paris—W. H. Cooke will erect residence on S. Main St.; cost \$10,000; contract let.

Tex., San Antonio—A. G. Dugger, Gibbs Bldg., will erect residence; cost \$10,000; 30x32 ft.; 2 stories with 1-story wings; concrete foundation hollow tile and stucco; hardwood floors; composition shingle roof; interior tile; gas steam heat, \$400; electric lights; Smith & Kelly, Archts. and Constr. Mgrs. (Lately noted.)

Va., Richmond—A. C. Helfrich will erect dwellings; Linder & Phillips, Archts.-Contrs.

Va., Richmond—Mrs. E. C. Sutherland will erect residence; Linder & Phillips, Archts.-Contrs.

Va., Richmond—Jesse F. Wood, Natl. State & City Bank, will erect \$15,000 residence; Linder & Phillips, Archts.-Contrs.

### Government and State.

N. C., Raleigh—Agricultural Building—Joint Building Comm., H. A. Underwood, Chrmn., 912 Commercial Bank Bldg., will erect agricultural building; J. E. Beaman, contr. at \$312,000. (Lately noted.)

### Hospitals, Sanitariums, Etc.

Mo., Marshall—John Fitzgibbon Memorial Hospital will erect building; Pratt-Thompson Construction Co., Kansas City, contr. at \$79,885; Paul Goeschel, Marshall, heating

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and plumbing; R. B. Randall Electrical Co., Kansas City, electrical work. (Lately noted.)

N. C., Wilmington—James Walker Memorial Hospital will erect nurses' home; cost \$53,000; 110x37 ft.; reinforced concrete frame; built up roof; concrete floors; heat from central plant; hollow fireproof tile; ornamental terra cotta; Jas. B. Lynch, Archt.; Rhodes & Underwood, Contrs. (Lately noted).

### Miscellaneous.

Fla., Eustis—Clubhouse—Lake County Country Club will erect \$10,000 clubhouse; contract let.

Fla., Jacksonville—Undertaking Establishment—Wm. C. Cooper, Jr., will erect building at 52½ W. Ashley St.; cost \$30,000; 2 stories and basement; 40x98 ft.; brick; white Indiana limestone trim; chapel to seat 125; Marsh & Saxelby, Archts.; O. P. Woodcock, Contr.

Okla., Muskogee—Studio—Mrs. Jessie Duke will erect building at 15th and Court Sts., cost 16,000; lower floor for studio and auditorium; upper floor, apartments; Henry Valeur, Archt.; Hoffman & Wilcox, Contrs.

Va., Richmond—Fair—Board of Directors, Virginia State Fair Assn., will erect building; cost \$25,480; Hunt & Armheim, Contrs.

W. Va., Wheeling—Market—Forsch & Friessmuth, Inc., will expend 12,000 improve building for meat market; steel, tile and glass front; tile floors; metal ceiling and sidewalls; H. W. Hugger, Contr.

### Railway Stations, Sheds, Etc.

Ark., Jerome—Missouri-Pacific R. R., E. A. Hadley, Ch. Engr., St. Louis, will erect freight and passenger station; 23x74 ft.; frame and stucco; Jerome Moss, Contr., Chicago, Ill.

### Schools.

Ala., Montgomery—Montgomery County Board of Revenue, D. C. Allen, Prest., will erect school at Capitol Heights; 7 classrooms, auditorium, library; brick; galvanized shingle roof; rift pine floors; vacuum vapor heat; electric lights; C. Frank Gallher, Archt., 701 First Natl. Bank Bldg.; I. O. Anderson, contr. at \$46,381. (Lately noted).

Ark., Eudora—School Board, Lake Village, will erect 7 room school building and teachers' cottage about 6 mi. from Eudora; L. Wages, Contr., Lake Village.

Ark., Newport—Newport School Dist. Trustees will remodel East Side Grammar School and erect addition of 4 classrooms and auditorium; brick stone trim; 2 stories; J. D. Johnson, Little Rock, contr., at \$26,700 Ed. Claxton, Newport, plumbing and heating, \$6000.

La., Shreveport—Caddo Parish School Board will erect South Highland and Claiborne schools; cost about \$300,000; Brashier Construction Co., Contr. (Previously noted).

Md., Baltimore—Holy Rosary Catholic Church, Eastern Ave. and Bethel St., will

erect school building; 3 stories and basement; brick; 18 class rooms; cost \$155,000; Frank J. Baldwin, Archt., 328 N. Charles St.; Frainie Bros. & Haigley, Contrs., 18 Clay St.

Mo., Columbia—Stephens College Board of Trustees will erect science hall; 3 stories; 60x180 ft.; brick, stone and steel; Jamieson & Spearl, Archts., 1116 Arcade Bldg., St. Louis; Davis & Phillips, Constr. Co., Columbia, contr. at \$79,861; W. C. Cornell, plumbing; Eichler Heating Co., heating, both St. Louis. (Lately noted.)

Mo., Hatfield—Board of Education will erect building; cost \$25,000; E. C. Ebbe, Contr., Trenton; H. D. Pampel, Archt., Finance Bldg., Kansas City; plans include 60x60 ft.; 2 stories and basement; brick; gravel roof; double wood floors; stone trim; steam heat. (Lately noted.)

N. C., Pollocksville—Board of Education will erect school building; cost \$60,000; Rhodes & Underwood, Contrs.

N. C., Salisbury—City Board of Education, T. Wingate Andrews, Secy., will erect additions to North Main Street School; cost \$16,000; 4 class rooms and gymnasium; addition to Ennis Street School; cost \$36,000; 10 rooms, auditorium and gymnasium; erect school for negroes; cost \$38,000; 13 rooms and auditorium; all structures brick; Barrett tar and gravel and asbestos shingle roofs; rift pine, composition and concrete floors; metal ceilings; ventilators; W. C. Northup, Archt., Wachovia Bank Bldg., Winston-Salem; L. S. Bradshaw, Contr., Salisbury; will also erect addition to West Ward School; cost \$34,000; 10 class rooms; E. W. Waggoner, Contr. (Lately noted).

Okla., Cement—Board of Education will erect addition to high school; 9 rooms; \$35,000 bonds voted, contract let.

Okla., Muskogee—Bacone College will erect girls' dormitory; cost \$50,000; J. H. Reddick, Fort Smith, Ark., Contr. on cost plus basis; will also erect men's dormitory. (Previously noted.)

Tenn., Del Rio—Coke County Board of Education, Newport, will erect school building. (See Tenn., Hartford).

Tenn., Hartford—Coke County Board of Education, Newport, J. W. Fisher, Chrmn. Bldg. Comm., will erect schools at Hartford, Del Rio, Edwina, Denton, Harmony Grove, Syracuse, Briar Thicket and Parrottsville; 2 to 5 rooms; brick and frame; asphalt shingle roof; total cost \$37,100; Manley & Young, Archts., 914 W. Hill Ave., Knoxville; J. L. Vinland and C. N. Mize, Contrs., Maryville. (Lately noted).

Tenn., Loyston—Union County Building Committee, Jno. F. Mitchell, Chrmn., will erect consolidated school building; 4 rooms and auditorium; asphalt shingle roof; Manley & Young, Archts., 814 W. Hill Ave., Knoxville; W. E. Bishop, Contr., LaFollette. (Lately noted.)

Tenn., Niota—School Board, J. S. Lewis, Secy., will erect school building; cost \$25,000; accommodate 400 pupils; auditorium to seat 700; O. W. Duggan, Contr., Etowah.

Tenn., Parrottsville—Coke County Board of Education, Newport, will erect school building. (See Tenn., Hartford).

Tex., Saratoga—Saratoga Independent School Board will erect building lately noted; cost \$68,700; 2 stories; brick; 17 rooms; Barrett specification built-up roof; wood floors; metal ceilings; steam heat, \$7500; city lights; F. W. Steinman & Son, Archts.; McDaniel & Hartford, Contrs., both Beaumont. (See Mch. Wanted—Building Material; Lumber; Brick; Metal Ceiling; Lath (Wood); Cement.)

Tex., Sulphur Springs—Sulphur Springs Independent Dist. School Board, E. L. Ashcroft, Prest., will erect high school building; cost \$100,000; 2 stories; reinforced concrete; Banglebaugh & Whitson, Archts., 1008 Southwestern Life Bldg., Dallas; Walter White, Contr., Greenville. (Lately noted).

### Stores.

Fla., West Palm Beach—D. F. Dunkle will erect store building at Palm Beach; cost \$16,000; 55x88 ft.; hollow tile; composition roof; concrete and maple floors; Harvey & Clarke, Archts.; Brown & Wilcox, Contrs. (Lately noted).

Ga., Atlanta—Hurt & Quinn will erect brick store building at 200-06 W. Peachtree St.; cost \$16,000; Griffin Hodges Co., Contr.

N. C., Asheville—Frank Loughlan will erect building at Haywood and Walnut Sts.; cost \$100,000; 6 stories; concrete foundation; steel frame; Smith & Carrier, Archts.; Southern Engineering Co., Charlotte, Contr. for steel work. (Lately noted).

S. C., Blacksburg—C. M. and W. A. Whisnant will erect 2 brick stores; 25x80 ft.; G. W. and J. H. Bridges, Contrs.

Tex., Lufkin—C. H. Harrell will erect building on Lufkin Ave.; 75x140 ft.; brick; contract let.

Tex., Lufkin—C. H. Mantooth will erect business building on Lufkin Ave.; contract let.

W. Va., Charleston—Charleston Independent School Dist. Board of Education, W. O. Daum, Secy., will erect junior-high school and Glenwood graded school; Charlottesville Lumber Co., Charlottesville, Va., contr. for former at \$182,904; Wise Granite & Construction Co., Richmond, Va., contr. for latter at \$134,980; both structures brick, stone and oist construction; fireproof stairs and corridors; metal partitions; composition roof; metal doors; terrazzo and hardwood floors; metal doors; wire glass; ventilators, steel sash and trim; Warne, Tucker & Patterson, Archts., Masonic Temple, Charleston. (Lately noted.)

W. Va., Huntington—Watts-Ritter & Co. will erect building adjoining present store on Third Ave.; 5 stories; concrete and brick; fireproof; cement floors; cost \$100,000; Robt. L. and Sidney L. Day, Archts., Huntington; American Engineering Constr. Co., Contr., Charleston. (Lately noted.)

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Asphalt.**—City, Z. B. Wilson, Mayor, Lenoir City, Tenn.—Asphalt. (See Construction News—Road and Street Construction.)

**Brick.**—McDaniel & Hartford, Beaumont, Tex.—Common brick. See Building Material.

**Bath Room Fixtures.**—Richmond Housing Co., Box 131, Richmond, Va.—24 sets of bath room fixtures for buildings under construction.

**Barges.**—See Dredging Machinery, etc.

**Boilers.**—City of Vicksburg, Miss., J. J. Hayes, Mayor. Bids until April 3 to purchase 2 boilers of city water works; plans on file in office of City Mgr.

**Bridge Construction.**—Hillsborough County Comms., Tampa, Fla.—Bids until Apr. 24 to build reinforced concrete bridge; 160-mi. roads; \$3,000,000; specifications from Clk. of Circuit

Court. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Norborne & Land Drainage Dist. Co., Carrollton, Mo.—Bids until Mch. 30 to build 57 bridges; plans, etc., on file with Secy., Norborne, Mo., Circuit Clk. Carrollton, Mo. and Elliott & Harman Engineering Co., Peoria, Ill. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—State Highway De-

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partment, Peachtree Bldg., Atlanta, Ga.—Bids probably about May 1 to construct 4 bridges, total length 489 ft.; Georgia Standard concrete pile; F. M. Hill, Div. Engr., Tifton, Ga. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Williamson County, H. A. Hodges, County Auditor, Georgetown, Tex.—Bids until March 31 to construct bridge over San Gabriel River; two 120-ft. steel spans; 41-ft. concrete girder on south approach; two 41-ft. girders on north approach; concrete bents and abutments; 197,100 lbs. structural steel and 80,067 lbs. reinforcing steel; plans, etc., from R. A. Nichols, County Engr., or State Highway Dept., Austin, Tex. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Williamson County, H. A. Hodges, County Auditor, Georgetown, Tex.—Bids until March 31 to construct bridge over Bull Branch; three 41-ft. concrete girders, concrete bents and abutments; 55,426 lbs. reinforcing steel; Federal Aid Project No. 260; plans, etc., from R. A. Nichols, County Engr., Georgetown, and State Highway Dept., Austin, Tex. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—City, T. H. McNeil, Recorder, Johnson City, Tenn.—Bids until Apr. 12 to construct 3 concrete bridges; plans, etc., from City Engr. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Williamson County, H. A. Hodges, County Auditor, Georgetown, Tex.—Bids until March 31 to construct bridge over North Gabriel River; two 120-ft. steel spans; 41-ft. girder approach at each end; concrete piers and abutments; 230,510 lbs. structural steel and 65,895 lbs. reinforcing steel; also bridge over Berry's Creek; 120-ft. steel span; 41-ft. girder approach at south end and four 41-ft. girders at north end; concrete piers, bents and abutments; 98,580 lbs. structural steel and 104,715 lbs. reinforcing steel; Federal Aid Project No. 260; plans, etc., from R. A. Nichols, County Engr., Georgetown, and State Highway Dept., Austin, Tex. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Bell County, J. W. Sutton, County Judge, Belton, Tex.—Bids opened March 28 to build concrete bridges on Highway No. 2; cost \$75,000; S. J. Treadway, County Engr., Temple, Tex. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Galveston County, E. B. Holman, County Judge, Galveston, Tex.—Bids within 30 days to build 293 ft. reinforced concrete trestle bridge over Dickinson Bayou on State Highway No. 2; 500 cu. yds. concrete, etc.; C. C. Washington, County Engr. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Bell County, J. W. Sutton, County Judge, Belton, Tex.—Bids until Apr. 1 to build concrete bridge; S. J. Treadway, County Engr., Temple, Tex. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Cherokee County, C. F. Gibson, County Judge, Rusk, Tex.—Bids until March 30 to construct 125-ft. steel bridge over Angelina River between Cherokee and Nacogdoches County line; Calvin E. Cocke, County Engr. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Escambia County Commrs. Pensacola, Fla.—Bids until Apr. 18 to build 5 reinforced concrete bridges; 2 box culverts; grading approaches between Pensacola and Flomaton; plans, etc., from

James McGibbon, Circuit Clk. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Galveston County, John M. Murch, Auditor, Galveston, Tex.—Bids until Apr. 17, to build reinforced concrete pile trestle bridge; thirteen 30-ft. spans, 30-ft. center span, etc.; plans; etc. on file. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—Greenbrier County Court, Lewisburg, W. Va.—Bids until April 4 to construct Howards Creek bridge; 120-ft. span; also Spring Creek bridge; 120-ft. span; information from J. W. Rader, County Engr. (See Construction News—Bridges, Culverts, Viaducts, Etc.)

**Bridge Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to build bridge over Haw River near Haw River station on route No. 10 with  $\frac{1}{4}$  mi. approach hard surface road; Alamance County Project No. 503. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—State Highway Dept., Jefferson City, Mo. Bids until Apr. 4 to build 24-ft. reinforced concrete bridge on state road from Wheatland eastward and westward; Hickory County, Federal Aid Project No. 98; S. M. Rudder, Div. Engr., Sedalia, Mo. (See Construction News—Bridges, Culverts, Viaducts.)

**Bridge Construction.**—State Highway Dept., Jefferson City, Mo. Bids until Mch. 30 to build bridges on state road from Newhampton eastward and westward; 50-ft. and 55-ft. pony truss spans; two 20-ft. reinforced concrete slab spans; cost \$26,430.35; Harrison County, Federal Aid Project No. 50; A. C. Lingley, Div. Engr., Ballinger Bldg., St. Joseph, Mo. (See Construction News—Bridges, Culverts, Viaducts.)

**Building Material.**—M. A. Long Co., 1523 Munsey Bldg., Baltimore, Md. is estimating on construction of 1 story and basement school building at Cumberland, Md.; 200x200 ft.; brick and stone; desires sub bids and estimates until April 8.

**Building Material.**—McDaniel & Hartford, Beaumont, Tex.—Building material including yellow pine lumber, common brick, metal ceiling, Portland cement, sand and gravel, lime, plaster and wood lath. (See Contracts Awarded, Schools—Tex., Saratoga.)

**Building Material.**—J. H. Huntzinger, 909 Baltimore St., Kansas City, Mo.—Building material including hollow fireproof tile, interior tile; ornamental terra cotta, wire glass; steel sash and trim. (See Buildings Proposed—Bank and Office.)

**Call (Nurses) System.**—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids opened Mch. 23 to furnish and deliver apparatus for nurses' II system at U. S. Veterans Hospital, Webb Ave. and Kingsbridge Rd., Bronx, New York; information on application.

**Canning Machinery.**—W. T. Larimore, Mgr., Hugo Canning & Preserving Co., Hugo, Okla.—To purchase canning machinery for 3000 to 5000 cans daily capacity plant. (See Construction News—Canning and Packing Plants.)

**Canning Plant.**—Gulf Coast Orchard Syndicate, E. B. Harang, Prest., Brazoria, Tex.—Invites bids for erection and equipment of plant, capacity 1,000,000 lbs. figs. (See Construction News—Canning & Packing.)

**Cars (Flat).**—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—20 flat cars, 41 ft. long; 80,000 lb. capacity; second-hand.

**Ceiling (Metal).**—Farmers Co-operative Creamery Co., Fairhope, Ala.—Prices on

metal ceiling, plain design, for 20 x 20, 20 x 30, and 50 x 66-ft. rooms.

**Cement.**—City, Z. B. Wilson, Mayor, Lenoir, Tenn.—Cement. (See Construction News—Road and Street Construction.)

**Cement.**—McDaniel & Hartford, Beaumont, Tex.—Portland cement. See Building Material.

**Coach (Passenger).**—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand passenger coach with rattan seats, suitable for workmens train.

**Compressors (Air).**—H. H. Thrasher, Prest. Bond Marble Co., Knoxville, Tenn.—Air compressors for marble quarry. (See Construction News—Mining.)

**Compressors (Air).**—J. L. Barr, 224 St. Paul St., Baltimore, Md.—Data and prices on small air compressors for 100 lb. pressure.

**Cylinders (Deep Well).**—Farmers Co-operative Creamery Co., Fairhope, Ala.—Prices on double-acting deep well cylinders, of different types, to be used in 5 and 8-in. well casings; also names and addresses mfrs. of cylinders.

**Cresoted Products.**—State Highway Commission, Montgomery, Ala.—Bids opened March 21, 22, 28 and 29 to construct bridges over Cahaba and Warrior Rivers, etc.; 150,600 ft. cresoted lumber and about 9000 lin. ft. cresoted piling. (See Construction News—Bridges, Culverts, Viaducts.)

**Crusher (Rock).**—Jones & Wilson, Contrs., Mt. Airy, N. C.—Small rock crusher, size 5 yd. per hr.

**Derrick.**—H. H. Thrasher, Prest. Bond Marble Co., Knoxville, Tenn.—Large steel derrick for marble quarry, monthly output 10,000 to 20,000 cu. ft. block marble. (See Construction News—Mining.)

**Dextrines, Oils, etc.**—Treasury Dept., Bureau of Engraving and Printing, Washington, D. C.—Bids until Apr. 3 to furnish for year beginning July 1, 1922; dextrines; oils; textiles; engravers supplies; dry colors; paper boxes, paper and check paper. Blank forms and information obtainable from James L. Wilmeth, Director.

**Drainage, etc.**—Ivan Shiller, Box 976, Del Rio, Tex.—Instructive literature on drainage, irrigation, trench making, water works, etc.

**Drill (Air), etc.**—H. H. Thrasher, Prest. Bond Marble Co., Knoxville, Tenn.—Air drill for marble quarry, capacity 10,000 to 20,000 cu. ft. block marble per month. (See Construction News—Mining.)

**Dredging.**—Clay County Commrs. of Sun Creek Drainage Dist. No. 1, West Point, Miss.—Bids until Apr. 1, to clear right of way and dredge canal; L. J. Howard, Chancery Clk. (See Construction News—Drainage Systems.)

**Dredging Machinery, etc.**—King Sparks, Sheffield, Ala.—Dredging mchy. for handling sand and gravel from river into barges; also several 100 ton barges.

**Drill Press.**—See Machine Shop Equipment.

**Drill Press.**—Martin Auto Service Co., N. Main St., Joplin, Mo.—Drill press.

**Electric Equipment.**—Ocklawaha Reclamation Farms, J. D. Young, Leesburg, Fla., Engr.—Prices on complete turbine (vertical) with generators (complete units) about 150,250 and 400 H. P. (See Construction News—Electric Plants.)

**Electric Fixtures.**—J. B. Bower, Jr., Box 393, Cumberland, Md.—Ornamental electric fixtures. (See Contracts Awarded—Dwellings.)

**Electric Lighting Equipment.**—City, J. M. Thompson, Clk., Germantown, Tenn.—Prices on wire for electric light, lamps, brackets, insulator for poles, street lights.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

**Elevator (Passenger, Electric).**—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until April 19, to install complete one push-button control electric elevator in main building, U. S. Marine Hospital, Mobile, Ala.; information on application.

**Engine (Hoisting).**—Richmond Housing Co., Box 131, Richmond, Va.—Portable hoisting engine.

**Engine (Oil).**—City, J. M. Thompson, Clk., Germantown, Tenn.—Prices on 35 to 40 H. P. oil engine.

**Forage.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Mch. 31 to furnish forage at certain posts and depots of Marine Corps during period Apr. 1 to June 30, 1922; Sch. No. 277; information on application.

**Gasoline.**—T. S. Goldston, High Point, N. C.—Names and addresses of independent gasoline companies; to purchase in quantities for wholesale.

**Gasoline, etc.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Mch. 31 to furnish gasoline, kerosene and fuel oil during period Apr. 1 to June 30, 1922, at Portsmouth, N. H., New York, N. Y., Dover, N. J., Philadelphia, Pa., Annapolis, Md., Washington, D. C., Quantico, Va., Yorktown, Va., Norfolk, Va., Charleston, S. C. and Parris Island, C.C.; Sch. No. 278; information on application.

**Generator.**—See Electric Equipment.

**Generator.**—City, J. M. Thompson, Clk., Germantown, Tenn.—Prices on 25 K. V. A.—AC generator.

**Generator Set.**—Roland M. Lamb, 300 Madison Ave., New York City.—300 K. W. engine driven electric generator set, 3 phase, 25 cycle, 440 volts; operate non-condensing, against back pressure.

**Glass Paper Weights, etc.**—H. M. Hargrave, Prest., San Jacinto Life Insurance Co., Beaumont, Tex.—Names and addresses mfrs. of glass paper weights and other special designs in glass; prefer mfrs. in South.

**Golf Balls.**—Lorick & Lowrance, Columbia, S. C.—Interested in golf balls made up under our private brand; to correspond with mfrs.

**Grinder (Knife).**—R. H. Etheredge, Saluda, S. C.—Second-hand knife grinder for planer bits; hand feed.

**Handle (Wood) Machinery, etc.**—Edward and Charles Jumonville, 604 Liverpool, London and Globe Bldg., New Orleans, La.—To correspond with mfrs. of wooden handles for mops, also mfrs. of mchy. to make wood handles.

**Heating plant.**—J. B. Brower, Jr., Box 393, Cumberland, Md.—Heating plant. (See Contracts Awarded—Dwellings.)

**Heating Plant.**—T. J. Hackney, Wilson, N. C.—Heating plant. (See Buildings Proposed, Churches.)

**Heating Plant Equipment.**—Treasury Department, Supvg. Archt's Office, Washington, D. C.—Bids until April 10 for installation complete of mechanical equipment for central heating plant, outside service and 19 hospital buildings at U. S. Veterans Hospital, No. 24, Palo Alto, Cal.; information on file or with J. W. Roberts, San Francisco.

**Heating System.**—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until April 18, steam heating system, plumbing and wiring changes in main building, U. S. Marine Hospital, Mobile, Ala.

**Ice and Refrigerating Plant.**—Treasury Dept., Supvg. Archt's Office, Washington, D. C.—Bids until April 19, install ice making and refrigerating plant in main building, U. S. Marine Hospital, Mobile, Ala.

**Kaolin, etc.**—National Waterproofing Co., Jacksonville, Fla.—Catalogs or trade papers interested in clay industries, including kaolin, china clay, fullers earth, etc.

**Lathe.**—See Machine Shop Equipment.

**Lathe.**—Lew Machine Co., 206 Joplin St., Joplin, Mo.—Lathe.

**Lath (Wood).**—McDaniel & Hartford, Beaumont, Tex.—Wood lath. See Building Material.

**Lathe.**—Martin Auto Service Co., N. Main St., Joplin, Mo.—Lathe.

**Lighting Equipment.**—T. J. Hackney, Wilson, N. C.—Lighting Equipment. (See Buildings Proposed, Churches.)

**Lighting System.**—Gooney Manor Copper Co., Front Royal, Va.—Lighting system for mines, 20 to 40 lights, good second-hand preferred; state price and condition.

**Locomotive.**—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand 50-ton locomotive, about 15x20-in. cylinders, 18,000 lb. tractive effort, of the 2-4-2 double ender saddle tank type; good condition.

**Locomotive.**—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand modern standard gauge, 50 ton Shay geared locomotive.

**Locomotive.**—T. J. Lane Equipment Co., Springfield, O.—12 x 16, 36-in. gauge saddle tank locomotive for service in Ohio.

**Lumber.**—McDaniel & Hartford, Beaumont, Tex.—Yellow pine lumber. See Building Material.

**Machine Shop Equipment.**—Triangle Machine Works, Central City, Ky.—Good used mchy. including large and small lathe, milling machine, drill press, planer, hydraulic press, etc. (See Construction News—Foundry and Machine Plants.)

**Machine Shop Equipment.**—Ralph Cassner, 2nd. and Joplin St., Joplin, Mo.—Machine shop tools and equipment.

**Mail Chutes.**—J. H. Huntzinger, 909 Baltimore St., Kansas City, Mo.—Mail Chutes. (See Buildings Proposed—Bank and Office.)

**Metal Ceiling.**—C. C. Clapp & Son, Magazine, Ark.—Metal ceiling.

**Metal Ceiling.**—McDaniel & Hartford, Beaumont, Tex.—Metal ceiling. See Building Material.

**Meters (Electric and Water).**—City, J. M. Thompson, Clk., Germantown, Tenn.—Prices on 60 to 75 watt-hour meters and water meters.

**Milling Machine.**—See Machine Shop Equipment.

**Miscellaneous Supplies.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until March 30 to furnish: 5000 cks. white soap, 10,000 lbs. salt water soap, 250 gal. tar, 120 brushes, 1,500,000 paper cups, 125 cases tissue paper. Blank forms and information (Circular 2288) on application to offices of Panama Canal; Asst. Purchasing Agts. at Fort Mason, San Francisco, Cal.

**Miscellaneous Supplies.**—Treasury Department, General Supply Committee, Washington, D. C.—Bids until Apr. 10 to furnish during year beginning July 1, ending June 30, 1923, following supplies: Paper and paper articles; dry goods, clothing, boots and shoes; flags; window shades; lumber; millwork; building materials; motor trucks; tires and accessories; for use by Executive Depts., etc.; plans with General Supply Committee, Auditor's Bldg., 14th and B Sts.

**Molds (Soap).**—Thos. W. Spicer, Leesburg, Fla.—To purchase molds for mfrs. of soap.

**Motor.**—H. J. Moore, Sweetwater, Tenn.—50 H. P., 440 volt, A. C. Motor.

**Motor (Water).**—John Przybylski, Box 105, Houston Heights, Tex.—Names and addresses mfrs. of water power motors, suitable for washing machines.

**Organ.**—T. J. Hackney, Wilson, N. C.—Organ. (See Buildings Proposed, Churches.)

**Painting.**—Board of Awards, Wm. F. Broening, Prest., Baltimore, Md.—Separate duplicate bids until Apr. 5, at office, Richard Gwinn, City Register, City Hall, for exterior painting of Eastern Police Station, Bank St., nr. Broadway; Northeastern Police Station, Ashland Ave. and Durham St.; Northern Police Station, Cedar Ave. and 34th St.; also for interior painting of Northwestern Police Station, Pennsylvania Ave. and Dolphin St.; drawings and specifications at office, J. F. Crowther, Inspector of Bldgs., City Hall.

**Paving.**—City, Robt. L. Mouton, Mayor, Lafayette, La.—Bids until Apr. 17 to pave streets with concrete asphalt, asphaltic concrete or bitulithic, with necessary curbing gutters, etc.; 7370 lin. ft. concrete gutter; 20,750 sq. yds. pavement; plans, etc., on file with City Engr. or from J. B. McCrary Engineering Corp., Engr., Atlanta, Ga.—See Construction News—Road and Street Construction.)

**Paving.**—City, Mat Miser, Commr. Streets and Sewers, Huntington, W. Va.—Bids until Apr. 5 to grade, curb and pave following streets and avenues: Edward, Buffington, 22nd and 2nd Sts., and Monroe, Latulle and Doulton Aves.; plans, etc. on file, or from A. B. Maupin, City Engr. (See Construction News—Road and Street Construction.)

**Paving.**—City, P. A. Poag, Secy, Monroe, La.—Bids until Apr. 3 to pave Jackson St. from Desiard Ave.; 25,000 sq. yds. paving; 16,000 ft. curb and gutter, etc.; plans, etc., from R. A. Reynolds, City Engr. (See Construction News—Road and Street Construction.)

**Paving.**—Poinsett County Commrs., Ozark, Trail Road Improvement Dist., Harrisburg, Ark.—Bids until Apr. 12 to construct 10-mi. reinforced concrete pavement, 18-ft. wide; plans, etc., from Morgan Engineering Co., Engr., Memphis, Tenn., or State Highway Comm., Little Rock, Ark. (See Construction News—Road and Street Construction.)

**Paving.**—City, of Selma, Ala.—Bids until Apr. 8 to construct concrete sidewalks on Furniss St. (Improvement Ordinance No. 112); concrete sidewalks on Parkman Ave. (Improvement Ordinance No. 105); concrete sidewalks on Church St. (Improvement Ordinance No. 108); concrete sidewalks on Franklin St. (Improvement Ordinance No. 109); concrete sidewalks on Union St. (Improvement Ordinance No. 110); plans, etc., from W. O. Crisman, City Engr. (See Construction Laws—Road and Street Construction.)

**Paving.**—City, P. T. Sigler, Poplar Bluff, Mo.—Bids until Apr. 3 to pave streets; concrete; cost \$150,000; E. C. Nickey, Engr. (See Construction News—Road and Street Construction.)

**Paving.**—City, T. H. McNiel, Recorder, Johnson City, Tenn.—Bids until Apr. 12 to grade and pave Claiborne St., between Walnut and Chestnut Sts., Grover St., between Walnut and Chestnut Sts., between Walnut and Poplar Sts.; 33,650 sq. yds. pavement; 34,300 lin. ft. curb and gutter; plans, etc., from City Engr. (See Construction News—Road and Street Construction.)

**Paving.**—City, J. L. Himes, Mayor, Bushnell, Fla.—Bids until Apr. 10 to pave streets; approximately 12,000 sq. yds.; Young, Merwin Engineering Co., Engr. (See Construction News—Road and Street Construction.)

**Pipe.**—(Gas) City, J. M. Thompson, Clk., Germantown, Tenn.—Prices on gas pipe.

**Planer and Matcher.**—R. P. Johnson, Wytheville, Va.—Dealers prices on second-

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band light 20 to 24-in. x 6-in. planer and matcher, single surfacer.

**Planing Mill Machinery, etc.**—Taylor-Lumber Co., Rutherfordon, N. C.—To correspond with mfrs. of mchy. for sash, door and planing mill, to operate with electric power.

**Plumbing.**—J. B. Brower, Jr., Box 393, Cumberland, Md.—Plumbing. (See Contracts Awarded—Dwellings.)

**Power Transmission System.**—Fairfax & Loudon Light & Power Co., A. S. Harrison, V. Prest., Fairfax, Va.—Bids until April 3 to construct 25 mi. pole line, 22,000 volt transmission, 3 sub stations and approx. 10 mi. distribution system; information on application. (See Construction News—Electric Light Plants.)

**Pressed Iron.**—Harrington Mfg. Co., Lewiston, N. C.—To correspond with firms equipped to stamp 500 or more irons out of 7/8 inch material, in shape of square.

**Pumps.**—See Spraying Machines, etc.

**Pump (Locomotive Air).**—High Point Machine Works, High Point, N. C.—9 or 11-in. locomotive air pump complete with governor, second-hand, good condition.

**Pulverizing (Salt) Machinery, etc.**—Chas. R. C. Nanson, Box 178, Ciudad de Mexico, Mexico.—To correspond with mfrs. of mchy. to pulverize and refine salt.

**Rails, etc.**—John Steptoe Co., Cincinnati, O.—To correspond with mfrs. of rolling stock, rails, etc. for horse drawn cars; plan extension of 2694 meters; gauge is 914 m/m and weight of rails about 35 lbs. per lin. meter; prefer to use auto trucks for both cargo and passenger service, arranged to run on rails; state prices and specifications.

**Refrigeration System.**—Box 665, Jacksonville, Fla.—Data on refrigeration for 80,000 cu. ft. of cold storage space.

**Reservoir.**—M. E. Broome, Mayor, Live Oak, Fla.—Bids until April 3 to furnish material, equipment and construct reinforced concrete reservoir; plans with H. M. Bailey, City Clk.

**Rip-Saw.**—R. H. Etheredge, Saluda, S. C.—Second-hand power feed rip-saw, with about 50 lin. feet feed per min.

**Road Construction.**—Bell County, J. W. Sutton, County Judge, Belton, Tex.—Bids opened March 28 to construct reinforced concrete drainage structures on State Highway No. 2; 233.2 cu. yds. concrete; S. J. Treadway County Engr., Temple, Tex. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids until March 30 to construct 10.45 mi. soil road in Hoke County; cost \$25,000; project 544. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids until March 30 to construct 4.19 mi. hard surface road in Granville County; cost \$126,000; Project 428. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids until March 30 to construct .64 hard surface road in Guilford County; cost \$18,000; Project 539. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids until March 30 to construct 12.58 mi. soil road in Halifax Northampton Counties; cost \$150,000; Project 138-A. (See Construction News—Road and Street Construction.)

**Road Construction.**—Pickens County, W.

L. Matheny, Clk., Commrs., Pickens, S. C.—Bids between April 15 and May for constructing 8 mi. Pickens-North Carolina highway; sand-clay or top-soil; cost \$100,000. (See Construction News—Road and Street Construction.)

**Road Construction.**—Montgomery County Highway Trustees, W. B. Hicks, Chmn., Biscoe, N. C.—Bids opened March 23 to construct 9.6 mi. Ophir road; top-soil; plans, etc., on file at Trot, N. C., or from L. V. Edwards, Consit. Engr., Winston-Salem, N. C. (See Construction News—Road and Street Construction.)

**Road Construction.**—York County Commrs., York, S. C.—Bids until Apr. 6 to construct 2.705 mi. York-Smyrna road between Hickory and Bullock's Creek; 8,740 cu. yds. top-soil; 1,696 lbs. steel reinforcement; Federal Aid Project 154. (See Construction News—Road and Street Construction.)

**Road Construction.**—Ouachita Parish Police Jury, J. M. Beard, Prest., Monroe, La.—Bids until Apr. 19 to construct 1-mi. hard surface Monroe-Natchitoches road, from Trenton St., West Monroe, to crossing of V. S. & P. railway; H. C. Daigre, Parish Engr. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until Apr. 4 to construct 7.4 mi. state road from Preston to Collins; cost \$42,010.14; Federal Aid Project No. 45; 7,035 mi. state road from Wheatland eastward and westward; cost \$37,493.57; Federal Aid Project No. 98; both Hickory County; S. M. Rudder, Div. Engr., Sedalia, Mo. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Highway Dept., Jefferson City, Mo.—Bids until March 30 to construct 6.169 mi. state road from New Hampton, eastward and westward; cost \$51,001.06; Harrison County, Federal Project No. 50; A. C. Lingley, Div. Engr., Balingier Bldg., St. Joseph, Mo. (See Construction News—Road and Street Construction.)

**Road Construction.**—Wichita County, J. P. Jones, County Judge, Wichita Falls, Tex.—Bids within 30 days to construct 8.16 mi. State Highway No. 2; 18-ft. reinforced concrete paving; J. M. Isbel, County Engr. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 6.7 mi. soil road and structures from Bethel to Edgecombe County line on route No. 90; Pitt County Project No. 187. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 2.0 mi. hard surface road between Pasquotank River bridge and Camden on route No. 34; Camden County Project No. 110. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 17 mi. soil road and structures between Waccamaw and Freeman on route No. 20; Columbus County Project No. 326. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April, to construct 11 mi. hard surface road between Fayetteville and Hoke County line on route No. 24; Cumberland County Project No. 340. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 12 mi. graded road between Jacksonville and Dixon on

route No. 30; with structures; Onslow County Project No. 304B. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 6.7 mi. soil road between Siler City and Randolph County line on route No. 60, with structures; Chatham County Project No. 402. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 10 mi. soil road and structures from Brevard to Rosman on route No. 28; Transylvania County Project No. 990. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 14 mi. soil road between Swiss and end of F.A. project No. 90 on route No. 60; Yancey County Project No. 888. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 6 mi. hard surface road between Sanford and end Project 898c. on route No. 50; Lee County Project No. 446. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 9.8 mi. hard surface road between Henderson and Warren County line on route No. 50; Vance County Project No. 473. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 6.7 mi. hard surface road between Norlina and Vance County line with structures on route No. 50; Warren County Project No. 494. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 17.6 mi. hard surface road between Reidsville and Virginia line on route No. 70; Rockingham-Caswell Counties Project No. 593. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Apr. 11 to construct 2-mi. State Highway from end of Cont. No. F-27A to Urbana; concrete; Frederick County Cont. No. F-49. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Apr. 11 to construct 3.34-mi. State highway on York Road, from end of Cont. No. B-30 to Penna. State line; concrete; Baltimore County Cont. No. B-35. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Road Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Apr. 11 to construct 3.75-mi. State highway from end of Cont. No. 216 to Union Bridge; concrete; Carroll County Cont. No. C1-25. (See Construction News—Road and Street Construction.)

**Road Construction.**—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Apr. 11 to construct 4.19-mi. State highway along Phila. Road from end of Cont. No. H-26A to Bush; concrete; Harford County Cont. No. H-27. (See Construction News—Road and Street Construction.)

**Road Construction.**—Chesterfield County Comms., Chesterfield, S. C.—Bids until Apr. 5 to construct concrete headwalls, three 4x4 reinforced concrete box culverts, double 6x6 rein-

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forced concrete box culverts, double 8x9 box culverts, 5.584-mi. Washington-Atlanta highway, between Ingram's mill race and Juniper Creek; plans, etc., from E. T. Mulloy, County Engr., Chesterfield, S. C., and State Highway Engr., Columbia, S. C. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 14 mi. soil road between Hoffman and Rockingham on route No. 50 with structures; Richmond County Project No. 661. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 6.6 mi. hard surface road between Rockingham and Hamlet on route No. 20; Richmond County Project No. 665. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 9.5 mi. penetration macadam between Taylorsville and Iredell County line with structures on route No. 75; Alexander County Project No. 600. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 10.4 mi. soil road from Statesville to Alexander County line with structures on route No. 75; Iredell County Project No. 640. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 10.3 mi. hard surface road with structures between Reynolds and Yadkin River on route No. 60; Forsyth County Project No. 742. (See Construction News—Road and Street Construction.)

**Road Construction.**—North Carolina State Highway Comsn., Raleigh, N. C.—Bids latter part of April to construct 1.5 mi. hard surface road with structures between Gaston County line and Kings Mountain on route No. 20; Cleveland County Project No. 821; 7 mi. hard surface road with structures between Kings Mountain and Cleveland Springs on route No. 20; Cleveland County Project No. 822. (See Construction News—Road and Street Construction.)

**Road and Street Construction.**—Hillsborough County Commrs., Tampa, Fla.—Bids until Apr. 24 to construct 160-mi. of 9, 15 and 24 ft. roads; brick, asphalt block, asphaltic concrete, sheet asphalt, plain concrete, penetration method; etc.; 3,000,000; specifications, etc., from Clerk of Circuit Court. (See Construction News—Road and Street Construction.)

**Sand.**—Port of New Orleans Commrs., 200 New Court Bldg., New Orleans, La.—Bids until April 6 to furnish approx. 120,000 cu. yds. of lake sand at Lock of the Navigation Canal, barge delivery.

**Sand Paper Machinery.**—Dawes Construction Supply Co., Box 314, Thomasville, Ga.—Data and prices on mchy. suitable for mfrs. of sand paper.

**Sand Washing Outfits.**—Connerat—Quist Contracting Co., 9 Realty Savings & Trust Bldg., Savannah, Ga.—Prices on small portable sand washing outfits; to correspond with mfrs.

**Sash and Trim (Steel).**—J. H. Huntzinger, 909 Baltimore St., Kansas City, Mo.—Steel sash and trim. See Building Material.

**Saw Mill.**—W. W. Rich, Emporia, Va.—Prices on new or second-hand short log saw mill; to correspond with mfrs. or dealers.

**Saw Outfits.**—Richmond Housing Co., Box 131, Richmond, Va.—Portable saw outfits.

**Seating.**—T. J. Hackney, Wilson, N. C.—Seating. (See Buildings Proposed, Churches.)

**Sewers.**—City, T. H. McNeil, Recorder, Johnson City, Tenn.—Bids until April 12 to install 6200 ft. of 6 in., 7175 ft. of 8 in., 900 ft. of 12 in., 600 ft. of 18 in., 1500 ft. of 24 in. sewer; 26 manholes, 20 catch basins; plans and specifications on file at office of City Engr., Johnson City. (See Construction News—Sewer Construction.)

**Sewer Construction.**—City, Mrs. Frank Seaman, Auditor, Tulsa, Okla.—Bids until Mch. 30 to construct storm sewer along portions of East 11th St.; cost \$30,147.01; plans, etc. from City Engr. (See Construction News—Sewer Construction.)

**Sewer Construction.**—City, A. B. Maupin, Engr., Huntington, W. Va.—Bids until Apr. 5 to construct lateral sewer, south side of 11th Ave. between 21st and 22nd Sts.; plans, specifications, etc., on file at Office of City Engr.

**Sewers (Storm Drainage).**—City, Robt. J. Mouton, Mayor, Lafayette, La.—Bids until Apr. 17 for 52 basins and 22 manholes for storm drainage sewers; plans and specifications on file at office of Clk. of Board of Trustees, or City Engr.'s office, Atlanta, Ga., or Lafayette, La., J. B. McCrary, Engr. Corp., Engrs. (See Construction News—Sewers.)

**Shafting.**—Martin Auto Service Co., N. Main St., Joplin, Mo.—Shafting.

**Shelving (Metal).**—Treasury Dept., Supv. Archt's Office, Washington, D. C.—Bids until Apr. 28, for metal shelving for U. S. Post Office, custom house, and court house buildings at Honolulu, T. H.; plans on file or with Supv. Supt. of Construction, Room 408, Post Office and Court House, San Francisco, Cal.

**Shoes (Russet).**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Apr. 7 to furnish 30,000 prs. russet shoes; delivery to Marine Corps, 1100 S. Broad St., Philadelphia, Pa.; plans on file; Sch. No. 282.

**Spraying Machines, etc.**—Oldsmar Mfg. Co., Oldsmar, Fla.—Names and addresses mfrs. of spraying machines for orange and grape fruit trees; also mfrs. of pumps used in sprayers.

**Steel Roofing, etc.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids opened Mch. 27 to furnish corrugated steel roofing, G. I. roofing, nails and lead washers; delivery to Naval Operating Base, Hampton Roads, Va., made secure for over seas shipment; Sch. No. 274; information on application.

**Swings (Porch), etc.**—Tallassee Mills Store, No. 2, E. Tallassee, Ala.—Names and addresses mfrs. porch swings and hammocks.

**Swimming Pool.**—M. E. Broome, Mayor, Live Oak, Fla.—Bids until April 3 to furnish material, equipment and construct reinforced concrete swimming pool; plans with H. M. Bailey, City Clk.

**Tank (Asphalt).**—W. P. Kennedy Construction Co., Marianna, Fla.—Asphalt tank, about 8000 gal. capacity; state price and condition.

**Tank (Storage).**—City, J. M. Thompson, Clk., Germantown, Tenn.—Prices on storage oil tank.

**Telescopes and Thermometers.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Apr. 5 to furnish 40 telescopes and thermometers dough testing; delivery U. S. M. C., Philadelphia, Pa.; Sch. No. 281; information obtainable from Depot Quartermaster, 1100 S. Broad St., Philadelphia, Pa.

**Tomato Pulp Machinery, etc.**—W. T. Larimore, Mgr. Hugo Canning & Preserving Co., Hugo, Okla.—To purchase tomato pulp machinery and equipment for daily capacity plant 3000 to 5000 cans. (See Construction News—Canning & Packing Plants.)

**Terra Cotta (Ornamental).**—J. H. Huntzinger, 909 Baltimore St., Kansas City, Mo.

—Ornamental terra cotta. See Building Material.

**Testers (Linen).**—Florida Insecticide Co., Apopka, Fla.—To correspond with mfrs. of linen testers.

**Tile.**—J. H. Huntzinger, 909 Baltimore St., Kansas City, Mo.—Hollow fireproof and interior tile. See Building Material.

**Turbine.**—See Electric Equipment.

**Towing Tongues (Automobile).**—Towing Tongue Distributing Co., Greenwood, S. C.—Quotations on mfrs. of towing tongues (small steel article); furnish blue prints on request.

**Water Works.**—City of Bossier, La.—Bids until April 25 to install \$40,000 water system; plans on file at office of City Clk. and E. T. Archer & Co., Engrs., Shreveport, La. and 612 New England Bldg., Kansas City, Mo. (See Construction News—Water Works.)

**Water Works Equipment.**—P. C. Painter, City Mgr., Greensboro, N. C.—Bids opened Mch. 28 for cast iron water pipe, fittings, hydrants, valves, corporation cocks, lead goose necks, curb cocks and pig lead; f.o.b. Greensboro, N. C.; information on application.

**Water Works.**—Water Board, Scotland G. Highland, Secy. and Gen. Mgr., Clarksburg, W. Va.—Bids until Apr. 22 to construct 2 concrete storage dams Nos. 2 and 3; 790 cu. yds. rubble concrete and dams; plans on file; Fuller & McClintock, Engrs., 170 Broadway, New York. (See Construction—Water Works.)

**Water-Works Equipment.**—Town, J. A. Leonard, Mayor, Paul R. Raper, Clk., Lexington, N. C.—Bids until Apr. 18 to improve water-works; construct brick and concrete pumping station, filter house and filter tube; brick and concrete auxiliary station; concrete storage reservoir; concrete coagulating basin; 3½ mi. cast iron pipe; 3½ mi. 2200-volt transmission line; install filter plant equipment; motor-driven centrifugal pumps and accessories; plans, etc. on file, or from Gilbert C. White Co., Engr., Durham, N. C. (See Construction News—Water-Works.)

**Washing Machines.**—John Przybylski, Box 195, Houston Ht's., Tex.—Names and addresses mfrs. of washing machine, operated by either water motors or hand power.

**Wharves, etc.**—City Commrs. of Miami, Fla., F. H. Wharton, City Mgr.—Bids until April 4 to construct wharves, dredging slip and turning basin; excavation in slip 155,000 cu. yds. excavation in turning basin 29,000 cu. yds., steel sheet pile bulkhead wall 1300 lin. ft., wood sheet pile bulkhead wall, 1300 lin. ft.; Chas. W. Murray, Director of Public Service.

**Wire Glass.**—J. H. Huntzinger, 909 Baltimore St., Kansas City, Mo.—Wire glass. See Building Material.

**Yarns (Cotton).**—Edward and Charles Jumboville, 604 Liverpool, London and Globe Bldg., New Orleans, La.—To correspond with mfrs. of cotton yarning suitable for mops.

## Financial News

### New Financial Corporations.

Ala., Mobile—Mobile Building & Loan Assn., capital \$250,000, inceptd. by M. A. Boykin, Jerome H. Shep and Spencer Talmadge.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Ark., Reno—H. L. Sparkman, R. L. Butler, and others interested in establishing bank.

Ark., Stamps—Home Bldg. & Loan Assn., Prest.; W. D. Handcock, V.-P.; J. D. More, Secy.-Treas.

D. C., Washington—Standard National Bank, conversion of Standard Savings Bank, capital \$200,000, chartered with A. S. Gardiner, Prest.; Jas. Trimble, Jr., Cashier. (Lately noted.)

Fla., Miami—Title Guaranty & Trust Co., capital \$100,000, organized with Frank B. Shutts, Prest.; Burgess H. Spinney, Secy.

Ga. Americus—Empire Bank, capital \$50,000, chartered with R. C. Ellis, Tifton, Ga.; L. L. Bell, Americus, Ga.

Ga., Augusta—Royal Bond & Mortgage Corp., capital \$1,000,000 inceptd., by J. Donald, Augusta; Walter G. Springer, New York.

Md., Baltimore—Great Roosevelt Building & Loan Assn., 67 Knickerbocker Bldg., capital \$300,000, inceptd. by Mark Dischler, Kaufman Waskins and Nathaniel S. Weinstein.

Md., Baltimore—National Guaranty Co. of America, 1012 Hollins St., capital \$98,000, inceptd. by Irvin M. Duval, Lorenzo D. Greig and Melvin Andrews.

Md., Baltimore—Harvard Building & Loan Assn., 1505 Madison Ave., capital \$100,000, inceptd. by Israel Cohn, Arthur Coplin and Colman Sachs.

Md., Baltimore—Triangle Building & Loan Assn., 1101 Fidelity Bldg., capital \$390,000, inceptd. by John W. Mentzer, Chas. H. Gontum and Oliver K. Druey.

N. C. Mount Airy—Home Building & Loan Assn. inceptd. by W. E. Lindsay, Prest.; J. A. Tesh, V.-P.; Geo. W. Sparger, Jr., Secy.-Treas.

N. C., Ronda—Bank of Ronda, capital \$50,000, inceptd. by J. W. Choate, H. S. Vannay.

Okla., Clinton—Clinton Building & Loan Assn. capital \$250,000, inceptd. by C. W. Goodwin, H. Smith and C. E. Gannaway.

Okla., Hugo—City National Bank, conversion of First State Bank, capital \$100,000, chartered with M. L. Carter, Prest.; R. D. Margrave, Cashier.

Okla., Kemp City, P. O. Hendrix—First National Bank, conversion of First Bank, \$25,000 capital.

Okla., Norman—National Bank, conversion of Norman State Bank, capital \$50,000.

Okla., Poteau—Central National Bank, conversion of Central State Bank, capital \$25,000.

Okla., Poteau—Leflore County National Bank, conversion of Leflore County Bank, capital \$25,000, chartered with Frank Lewis, Prest.; E. G. Goodnight, Cashier. (Lately noted.)

Okla., Vinita—First Trust Co., capital \$50,000, inceptd. by A. L. Churchill, Chas. H. Collins and M. E. Milford.

S. C., Anderson—Carolina National Bank, capital \$200,000, organized with E. P. Vandiver, Prest.; Anderson; J. W. Norwood, V.-P., Greenville.

Tenn., Clarksville—First Trust & Savings Bank and Security Trust Co., have consolidated with combined capital of \$300,000.

Tenn., Jamestown—Farmers Bank, capital \$20,000, inceptd. by W. M. Johnson, Prest.; L. B. Chism and E. J. Wright, V.-P. (Lately noted W. M. Johnson interested in establishing bank.)

Tex., Beaumont—Texas National Bank, conversion of Texas Bank & Trust Co., capital \$250,000, chartered with Frank Alvey, Prest.; H. W. Gardner, Cashier.

Tex., Dallas—State Building & Loan Assn.,

capital \$10,000,000, inceptd. with Louis Blaylock, Prest.; W. C. Everett, Secy.-Treas.

Tex., Dallas—Onkeliff Building & Loan Assn., capital \$1,000,000, organized with Hugh W. Ferguson, Prest.; E. J. Olive, Treas.

Va., Richmond—Rookery Live Stock Loan Assn., capital \$100,000, chartered with John Clay, Prest.; Alan F. Wilson, Secy.; both Chicago.

W. Va., Wheeling—Ohio Valley Mortgage & Discount Corp., capital \$1,000,000, inceptd. by Geo. A. Blackford, Herman A. Hundt and Z. F. Robertson.

### New Securities.

Ala., Birmingham—Jefferson County Board of Revenue, D. C. Ball, Prest., sold \$1,000,000 of 6 per cent series A bonds, dated Apr. 1, 1922, and \$1,000,000 of 6 per cent series B, to Marks & Co., Birmingham, and R. M. Grant & Co., Chicago, Ill. (Lately noted inviting bids.)

Ala., Tuscaloosa—School—City, D. B. Robertson, Prest. Commrs. will sell \$50,000 additional bonds.

Ark., Newport—School—City, W. T. Parish, Secy., Board of School Directors, will receive bids until Mch. 31 on \$70,000 to \$75,000 of 6 per cent 25-yr. bonds.

Fla., Clearwater—Road—Pinellas County Commrs. plan voting June 20 on \$2,500,000 bonds.

Fla., Ft. Pierce—Street—City plans issuing \$10,000 warrants. Address The Mayor.

Fla., Fort Lauderdale—Street, Sewer and River Front—City plans voting on \$50,000 bonds. Address The Mayor. (Lately noted.)

Fla., Jacksonville—School—F. A. Hathaway, Supt., Board of Public Instruction, will receive bids until Apr. 1 for \$1,000,000 of 6 per cent, \$1000 denomination Duval County Special Tax School Dist. No. 1 bonds; dated Apr. 1, 1922.

Fla., Kissimmee—Bridge and Road—Osceola County Commrs. J. L. Overstreet, Clk. of Court, will receive bids until Apr. 15 for \$80,000 of 6 per cent Special Road and Bridge Dist. No. 4.

Fla., Orlando—Courthouse—Orange County plans voting latter part of April on \$400,000 bonds. Address County Commrs.

Fla., Pablo Beach—Electric—City voted on \$38,000 transmission bonds; J. A. Bussey, Mayor.

Fla., Quincy—Street, Electric and Sewer—City, J. P. Smith, Clk., plans voting on \$100,000 bonds.

Fla., Safety Harbor—Road and Electric Light Equipment—City, A. E. Shower, Clk., votes Mch. 28 on \$45,000 of 6 per cent \$500 denomination bonds, dated to May 1, 1922. (Lately noted.)

Fla., Seabreeze—Water and Incinerator.—Town voted \$55,000 water and \$5000 incinerator plant bonds. Address The Mayor. (Lately noted to vote.)

Fla., Wauchula—Road—Hardee County, Geo. H. Hardee, Clk., contemplates voting on \$1,000,000 bonds.

Ga., Buchanan—Road—Haralson County will vote Mch. 31 on \$200,000 bonds. Address County Commrs.

Ky., Hickman—Schools—City will vote April 1 on \$30,000 bonds. Address The Mayor.

La., Greensburg—Road—St. Helena Parish Police Jury, Chas. T. Allen, Secy., will receive bids until Apr. 15 on \$50,000 of 5 per cent semi-annual \$500 denomination 23-yr. Dist. No. 2

bonds; on \$30,000 of 5 per cent semi-annual \$600 denomination 24-yr. Dist. No. 3 bonds; on \$30,000 of 5 per cent semi-annual \$500 denomination 24-yr. Dist. No. 4 bonds; also on \$20,000 of 5 per cent semi-annual \$500 denomination 24-yr. Dist. No. 6 bonds. (Lately noted.)

La., Mansfield—School—G. O. Houston, Secy., Parish School Board, will receive bids until Apr. 18 for \$8000 of 6 per cent \$250 denomination Keachie School Dist. bonds.

La., Thibodaux—Road—Lafourche Parish will sell \$50,000 road construction bonds of Dist. No. 1.

Md., Rockville—Road—Montgomery County Commrs., Berry E. Clark, sold \$20,000 of 5 per cent \$500 denomination bonds, dated to Apr. 1, 1922, to Farmers' Banking & Trust Co., at \$20,532.60. (Lately noted.)

Miss., Aberdeen—School—A. K. Tigrett & Co., Memphis, Tenn., purchased \$6000 Monroe County Bartahatchie School Dist. bonds.

Miss., Belzoni—Drainage—A. K. Tigrett & Co., Memphis, Tenn., purchased \$24,000 Humphreys-Sharkey Counties Straight Bayou Drainage Dist. bonds.

Miss., Columbus—Railroad Aid—City, A. B. Lawrence, City Secy., receives bids Mch. 28 on \$98,000 of 5½ per cent bonds.

Miss., Grenada—School—A. K. Tigrett & Co., Memphis, Tenn., purchased \$75,000 bonds. (Lately noted.)

Miss., Louisville—Light and Water—City will receive bids on \$10,000 bonds for indebtedness and on \$5000 bonds for improvements; Edward M. Livingston, Mayor.

Miss., Mayersville—General Improvement—A. K. Tigrett & Co., Memphis, Tenn., purchased \$50,000 Issaquena County Supervisors District No. 4 bonds.

Miss., New Augusta—School—A. K. Tigrett & Co., Memphis, Tenn., purchased \$15,000 Perry County Richton Sep School bonds.

Miss., Union—Water-Works—Bank of Union purchased \$45,000 of 6 per cent 1-25-yr. bonds at par and accrued interest.

Miss., Waynesboro—Road—A. K. Tigrett & Co., Memphis, Tenn., purchased \$15,000 Wayne County Mulberry Road bonds.

Miss., Waynesboro—Road—A. K. Tigrett & Co., Memphis, Tenn., purchased \$35,000 Sep Road Dist. No. 5 bonds.

Miss., Yazoo City—General Improvement—A. K. Tigrett & Co., Memphis, Tenn., purchased \$25,000 Yazoo County Supervisors Dist. No. 5 bonds.

Mo., California—Water—City will vote on \$60,000 bonds; A. B. Cole, Jr., Mayor. (Lately noted.)

Mo., Keytesville—Drainage—Board Directors Chariton County Drainage Dist. No. 2 sold \$140,000 to Liberty Central Trust Co., and Lewis W. Thompson, both St. Louis, Mo., at \$100.80 per \$1000. (Supersedes recent item.)

Mo., Webb City—School—Claude E. Ball, Secy., School Board, will vote Apr. 4 on \$15,000 bonds.

Mo., Weldon—Drainage—Wm. R. Compton Co., St. Louis, Mo., purchased \$105,000 Weldon River Drainage Dist. bonds.

N. C., Altamahaw—Geo. H. Fowler, Secy., Board of Trustees will receive bids March 28 on \$50,000 of 6 per cent \$100 denomination Altamahaw—Ossipee Consolidated School Dist., dated Jan. 1, 1922.

N. C., Asheville—Road and Bridge—Buncombe County Commrs., Geo. A. Digges, Jr., Register of Deeds sold \$100,000 of 5 per cent semi-annual \$1000 denomination funding bonds, dated April 1, 1922 to Provident Savings Bank & Trust Co., Cincinnati, Ohio, at premium of \$130. (Lately noted inviting bids.)

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N. C., Bessemer City—City sold \$30,000 of 6 per cent Graded School Dist. bonds, dated Oct. 1, 1921, to Bumpus, Hull & Co., Detroit, Mich.

N. C., Franklin—School—John S. Trotter, Treas. Board of Graded School Trustees sold \$50,000 of 6 per cent bonds, semi-annual, \$1000 and \$500 denomination, dated Feb. 1, 1922, to R. M. Grany & Co., 31 Nassau St., New York, for 102.7. (Lately noted bids until Mch. 20.)

N. C., Morganton—Road—Board of County Comms., J. R. Howard, Clk., will receive bids until Apr. 3 for following township bonds; \$17,000 of 6 per cent \$1000 denomination, semi-annual Lower Fork Township bonds, dated May 1, 1922; \$20,000 of 6 per cent \$1000 denomination, semi-annual Quaker Meadows Township bonds, dated May 1, 1922; \$20,000 of 6 per cent \$1000 denomination, semi-annual Upper Creek Township bonds, dated May 1, 1922.

N. C., Murphy—Road—Cherokee County Comms. will vote Apr. 15 on \$25,000 Notla Township bonds.

N. C., Wilson—Wilson County Comms. will vote April 18 on \$2,000,000 bonds for road construction.

Okla., Anadarko—Road—Caddo County, Comms. North Cement Township plans voting on about \$49,000 bonds.

Okla., Chickasha—Fire Prevention Improvements—City, Mayor Hoffman, will vote Apr. 4 on \$50,000 bonds, including \$12,000 to install fire alarm system, \$22,000 for fire fighting equipment, and \$16,000 to purchase site and construct building.

Okla., Henryetta—Water, Sewer and Fire Department—City will receive bids about Apr. 15 on \$230,000 bonds, including \$45,000 water-works, \$85,000 sanitary sewer, \$75,000 storm sewer and \$25,000 fire department; these bonds are to be voted upon March 30. Address The Mayor. (Lately noted.)

Okla., Lawton—School—Board of Education, J. S. Kuntz, Clk., will receive new bids until April 19 on \$239,000 of 5 per cent bonds. (Lately noted bids until March 15.)

Okla., Miami—City sold \$100,000 bonds. Address The Mayor.

Okla., Thomas—School—Thomas School Dist. sold \$74,000 bonds. Address Board of Education.

S. C., Conway—School—Sherwood & McWilliam, Attorneys, sold \$50,000 of 6 per cent Burrough School Dist. No. 19 bonds, dated Jan. 1, 1922, to Burroughs & Collins, Conway. (Lately noted.)

S. C., Darlington—Roads—Darlington County Comms. sold \$100,000 improvement bonds.

S. C., Edgefield—Edgefield County Comms., A. A. Edmonds, Supvr., will receive bids until Mch. 31 on \$20,000 of 6 per cent 40-yr. bonds.

S. C., Hampton—School—Road, Bridge, etc.—Hampton County voted \$65,000 bonds. Address County Comms.

S. C., Orangeburg—Road—L. K. Sturkie, Clk., Orangeburg County Highway Comsn., receives bids Mch. 28 for \$325,000 of 6 per cent bonds.

Tenn., Alamo—Street—City will vote Apr. 10 on \$15,000 bonds; Address The Mayor.

Tenn., Clarksville—School—City will vote Apr. 6 on \$150,000 of 5 per cent \$1000 denomination bonds; W. B. Young, City Recorder. (Lately noted.)

Tenn., McKenzie—General Improvement—A. K. Tigrett & Co., Memphis, Tenn., purchased \$29,000 city bonds.

Tenn., Memphis—Jail—Shelby County Court, E. E. Strong, Chrmn., will receive bids until Apr. 4 for \$200,000 of 4%, 5, 5½ and 5½ per cent semi-annual 1-8-yr. serial bonds.

Tex., Alpine—Water-Works—City, B. F. Berkeley, Mayor, sold \$15,000 improvement bonds.

Tex., Angleton—Road—City will vote Apr. 29 on \$220,000 bonds. Address The Mayor.

Tex., Orange—Road—Orange County voted \$700,000 bonds. Address County Comms. (Lately noted to vote.)

Tex., Atlanta—School—Attorney General, Austin, Tex., approved \$65,000 of 6 per cent Atlanta Independent School bonds. (Lately noted.)

Tex., Bowie—School—City voted March 23 on \$22,000 of 6 per cent. Independent School Dist. bonds. Address The Mayor.

Tex., Breckenridge—Sewer—Attorney General, Austin, Tex., approved \$300,000 of 6 per cent serial bonds. (Lately noted.)

Tex., Brownwood—School—Breg. Garrett & Co., Dallas, Tex., purchased \$65,000 school bonds for \$62,137.

Tex., Cameron—Road—Milam County sold \$100,000 bonds to Brown, Cummer Co., Wichita, Kan.; W. G. Gillis, County Judge.

Tex., Canadian—School—State Controller, Austin, Tex., registered \$43,000 of 5½ per cent 20-40 year bonds.

Tex., Canutillo—School—Attorney General, Austin, Tex., approved \$15,000 of 6 per cent 40-yr. El Paso County School Dist. No. 1 bonds.

Tex., Chillicothe—School—Independence School Dist. voted \$60,000 bonds. Address Board of Education.

Tex., Coleman—Road—Breg Garrett & Co., Dallas, Tex., purchased \$25,000 of 5½ per cent, \$1000 denomination Coleman County Road Dist. No. 1 bonds; dated Feb. 1, 1922.

Tex., Coleman—Road—Coleman County, L. G. Matthews, Judge, sold \$436,000 of 5 per cent \$1000 denomination Precinct No. 1 bonds to Breg Garrett & Co., Dallas, Tex. (Lately noted inviting bids.)

Tex., Coleman—School—Breg Garrett & Co., Dallas, Tex., purchased \$25,000 of 5 per cent \$5000 denomination Independent School Dist.; dated July 18, 1921.

Tex., Corpus Christi—Road—Attorney General, Austin, Tex., approved \$900,000 of 5½ per cent Nueces County bonds. (Lately noted.)

Tex., Dallas—School—Breg Garrett & Co., purchased \$100,000 of 5 per cent \$1000 denomination Trinity Heights Independent School Dist. bonds, dated Mch. 1, 1922. Lately noted.)

Tex., Eastland—Road—State Comptroller, Austin, Tex., registered \$320,000 of 5 per cent serial special bonds on March 10.

Tex., El Paso—State Comptroller, Austin, Tex., registered \$15,000 of 6 per cent 20-40 yr. El Paso County Common School Dist. No. 211 bonds on March 10.

Tex., Fort Worth—Annexation and School—City, Paul C. Gilvin, Street Commr., contemplates voting April 6 on \$1,000,000 annexation and \$400,000 school bonds.

Tex., Fort Worth—School—State Comptroller, Austin, Tex., registered \$60,000 of 6 per cent serial South Fort Worth Independent School bonds.

Tex., Greenville—Street—Attorney General, Austin, Tex., approved \$125,000 of 5 per cent serial city bonds; J. F. Nichols, Mayor; (Lately noted.)

Tex., Groesbeck—School—City sold 760,000 bonds. Address The Mayor. (Lately noted voted bonds.)

Tex., Highland Park, P. O. Dallas—Water—City, H. R. Davis, Mayor, sold \$150,000 of 6 per cent, \$1000 denomination bonds to J. T. Bowman, Austin, Tex. for Taylor, Ewart Co., Chicago, Ill., Stacy & Braun,

Chicago and Detroit Trust Co., Detroit, Mich., at \$12,750 premium. (Lately noted inviting bids.)

Tex., Homestead—Road—Town, R. E. Edwards, Clk. sold \$15,000 of 6 per cent \$500 denomination bonds, dated Aug. 1, 1920, to W. L. Slaton & Co., Toledo, O., at par. (Lately noted.)

Tex., Panhandle—Water-Works and Gas—City, L. E. Brain, Mayor, will vote Apr. 4 on \$22,000 gas and \$54,000 water-works 6 per cent serial bonds.

Tex., Riverside—School—State Comptroller, Austin, Tex., registered \$65,000 of 6 per cent 40-yr. Independent School Dist. bonds.

Tex., Roby—Water-Works—Town, J. C. Hillburn, Mayor, will vote Apr. 8 on \$25,000 of 6 per cent 20-yr. water-works construction bonds.

Tex., Robstown—Road—State Comptroller, Austin, Tex., registered \$900,000 of 5½ per cent serial bonds.

Tex., Shamrock—Water-Works—City will vote Apr. 18 on \$100,000 bonds. Address The Mayor.

Tex., Stephenville—Water-Works—City voted \$50,000 improvement bonds. Address The Mayor.

Tex., Teague—School—Independent School Dist., Llewellyn Notely, sold \$50,000 of 6 per cent serial bonds. (Lately noted voted.)

Va., Portsmouth—Bridge and Road—Norfolk County Supvrs., G. Taylor Gwathmey, Clk., sold \$250,000 of 5 per cent semi-annual 20-yr. bridge and road bonds to Guaranty Co., New York, at 101.649. (Lately noted bids until Mch. 14.)

Va., Roanoke—School, Street Fire Equipment—City, Mayor Boxley, voted \$1,000,000 school, \$200,000 street and \$60,000 fire equipment bonds. (Lately noted to vote.)

W. Va., Chesapeake—School—City voted \$45,000 bonds. Address The Mayor. (Lately noted to vote.)

W. Va., Wheeling—Water—City will vote April 24 on \$2,000,000 bonds. Address The Mayor.

## Financial Notes.

Home Savings Bank, Durham, N. C. will increase capital from \$50,000 to \$100,000.

Merchants National Bank, Fort Smith, Ark., will increase capital from \$400,000 to \$500,000.

Okmulgee Securities Co., Okmulgee, Okla., increase capital from \$2000 to \$25,000.

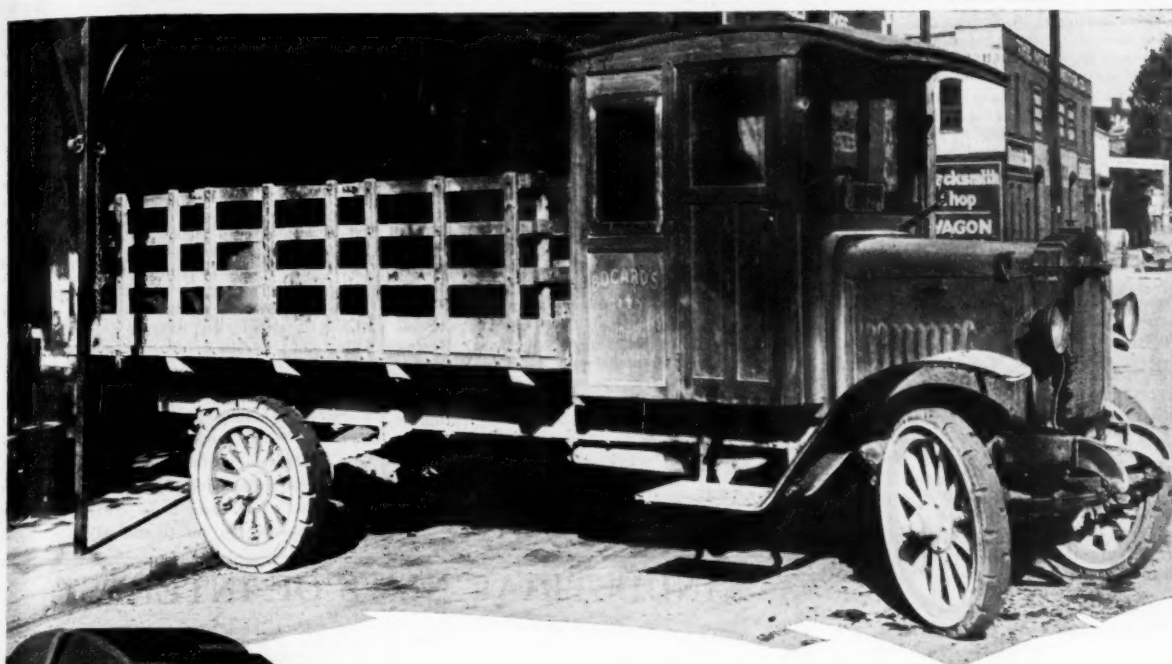
A statement showing the condition of the incorporated state banks in Virginia as of December 31, 1921, gives their total resources as \$189,803,133.09, which includes aggregate loans and discounts of \$142,506,082.75. The total of all deposits is \$129,247,188.50. Capital stock paid in is \$23,953,492.02; surplus, \$13,769,535.36; and undivided profits, net, \$3,378,575.74. Total number of banks, reporting, 336.

## Trade Literature.

### Real Estate Growth at Miami.

The remarkable growth of Miami, Fla.,—"A Village Twenty Years Ago; A City Today"—with particular reference to the real estate investment situation there, is described in a new series of new booklets just issued by the G. L. Miller Bond & Mortgage Company of Miami. One of these publications shows how the population rose from 1681 to 45,000, the latter being the 1921 figures.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.



## Give Caterpillars a trial— they'll do the rest

Last year Bocard's City Bottling Works of New Albany, Ind., tried out one set of Caterpillars as an experiment. Now, according to Mr. D. M. Bocard, the company's manager, they are putting Caterpillars on all their trucks as fast as the old tires wear out. We quote Mr. Bocard's letter below:

"The above is a photo of one of our trucks equipped with your Caterpillar tires all around. We have been using these tires all summer and from the results we have obtained you may rest assured that our other trucks will be equipped with Caterpillars as rapidly as the ones now in use wear out. We firmly believe there is more real service in a Kelly-Springfield Caterpillar tire than in any other tire on the market regardless of price."

Bocard's experience is typical of hundreds of truck fleet owners. Invariably the combination of traction, resiliency, dependability and mileage which Caterpillars offer soon convinces the fleet owner who tries one set that he should have them on his entire fleet.

All Caterpillars ask is a trial on your trucks.

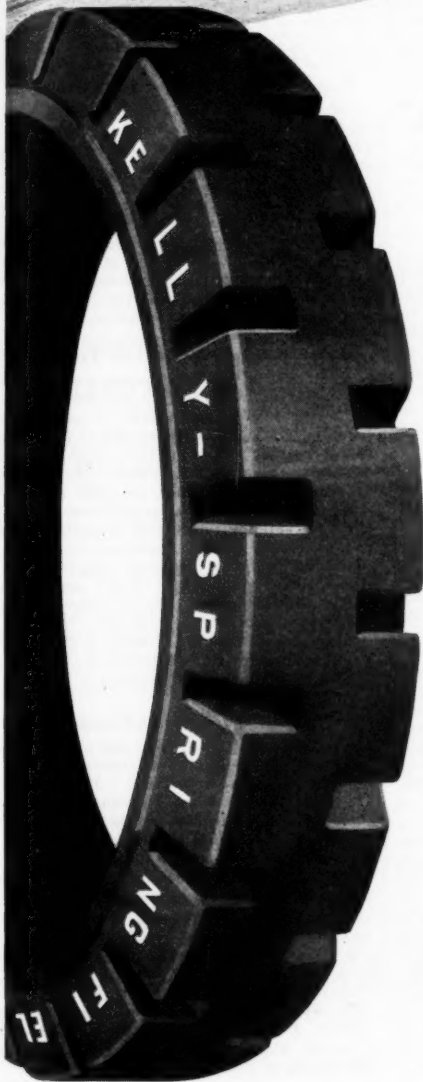
*Caterpillars are made in sizes suitable for trucks  
of every type and weight*

## Kelly-Springfield Tire Co.

GENERAL SALES DEPARTMENT

250 WEST 57th STREET

NEW YORK



These statistics, it is remarked, include only permanent residents of Miami and not the throngs who visit the city in winter to enjoy the climate. Another booklet is "Getting Acquainted With Your Investment Banker" and a third, concerning the Miller mortgage bonds, is called "The Ideal Investment." These publications are sent free by the company to anyone interested. The company has done important work financing business structures as well as apartment buildings in Miami by selling 8 per cent mortgages secured on the real estate. This has resulted in the investment in Miami of a large total of money coming from all parts of the country. In this connection it is interesting to note that the company has placed with investors at par and accrued interest a new issue of \$32,500 first mortgage 8 per cent serial gold bonds secured by the 3-story, fireproof Hermitage Hotel building in Miami.

#### Leaning Wheel Road Graders.

An attractive folder concerning the use of the Adams Adjustable Leaning Wheel Graders has been issued by J. D. Adams & Co., manufacturers of road building machinery, Indianapolis, Ind. It explains the special wheel principle in their construction and is finely and fully illustrated.

#### Engineers License Laws.

"Engineers License Laws" is the caption of a paper covered book of 136 pages containing copies of Acts in those States in which all-inclusive license laws for professional engineers have been enacted. The book was compiled by the American Association of Engineers, 63 East Adams St., Chicago. This book will be generally appreciated by members of the engineering profession.

#### Iron and Steel Year Book.

The Year Book of the American Iron and Steel Institute for 1921 has been issued from the headquarters of that organization at 61 Broadway, New York. It covers in detail the proceedings of the May and the November meetings of the Institute and includes a mass of valuable information concerning steel and steel processes as presented by the speakers at the meetings. There are pictures pertinent to the text and also some tabulated data for reference. Marshal Ferdinand Foch, of France, head of the Allied Armies in the World War, was a guest at the November meeting. The book is finely bound in dark red cloth.

#### Integral Waterproofing.

The Truscon Laboratories, Detroit, Mich., have issued a valuable booklet of 32 pages on the "Science and Practice of Integral Waterproofing," which is its title. The booklet describes this waterproofing as applied to basements, cement stucco, reservoirs, cisterns, tunnels, stand pipes, foundations, subways, and masonry structures of all kinds, and it is already in the second edition. It includes complete specifications for waterproofing mass concrete, waterproofing general masonry and old concrete surfaces, waterproofing by the cement plaster coat method and waterproofing cement stucco. The publication is appropriately illustrated.

#### All About Glass.

"Glass For Every Industry" is the title of a handsome catalog issued by the Hires Turner Glass Company, of Philadelphia, which incidentally describes the processes pursued in the manufacture of both plate glass and the plain, ordinary window glass. The book is abundantly illustrated with fine pictures showing various applications and uses of glass. There are also illustrations of different kinds of glass for special purposes,

those showing colored glass being printed in colors. The company has also issued two bulletins, one relating to corrugated glass and the other to structural glass for daylighting. Both of these are prepared in the same fine style which distinguishes the catalog and like it they contain much valuable information for users of glass. It is interesting to note that the catalog has been placed in many libraries of this country and in view of the fact that it is published in four languages—English, Spanish, French and Portuguese—it is used in commercial schools, colleges and libraries in various countries.

#### Clay Machinery Complete.

Catalog No. 33 of J. C. Steele & Sons, manufacturers of clay machinery, Statesville, N. C., displays and describes their line of machines for the manufacture of brick, hollow tile, hollow ware, drain tile, etc., besides the drag line excavator manufactured by the firm. The book is exceedingly complete, picturing and telling about the several items of machinery in detail and covering everything essential to the operation of a large brick or other clay product plant. It is finely printed.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

#### Opens Office at Houston.

The American Rolling Mill Company, of Middletown, Ohio, has opened a new office in Houston, Texas, and has placed C. C. Lynd, formerly in charge of the New Orleans office of this company, in charge. The New Orleans office has been closed.

#### Sale of Automobile Bodies and Road Machinery.

A large sale of automobile bodies and road building and stone crushing machinery is announced in another column to take place April 6 on the premises of the Nashville Warehouse & Elevator Company, at Nashville, Tenn. The sale will be conducted by auction and will include 270 National Court-Royale Model 2, five passenger touring car bodies for the Ford chassis, an assortment of road building, stone crushing and fertilizer crushing machinery, various mechanical equipment, electric motors, air compressor, well drill, tram rail, belting, shafting, bar iron, etc. J. E. Conant & Co., of Lowell, Mass., are the auctioneers in charge.

#### Plant on Full Forces Day and Night.

Erie Steam Shovel Company is the new name of the Ball Engine Company, Erie, Pa. The change was made because the undivided capital, energy and full plant capacity are now devoted exclusively to the production of the Erie steam shovels and cranes, the engine business having been sold to permit the entire manufacturing facilities to be used in turning out this machinery. It has been necessary to more than triple the plant capacity in the last six years to take care of the shovel business and the enlarged plant is now running day and night, with full force on each shift. There has not been any change whatever in either assets, policies, management or personnel of the company; the change is in name only to have a more fitting title. The manufacture of the Ball engines is now conducted by the Erie Ball Engine Company, of Pittsburgh, Pa., which was incorporated in 1920, and the engine business moved to that city where they have ample facilities for producing these engines, the change and removal being due to lack of adequate facilities at Erie as a result of expansion of the shovel end of the business.

#### A Fine Hand Book of Baltimore.

The Merchants & Manufacturers Association of Baltimore, Md., have issued a classified directory of Baltimore showing the special advantages of the city to the manufacturer, the exporter and importer, the jobber and the retailer. A table giving the freight differentials which the city enjoys, besides much other information as to its advantageous location as a distributing and receiving point are all contained in the book which consists of about 150 pages replete with names and addresses of Baltimore business houses in all lines of industry and commerce. The census of 1920 shows Baltimore's population to be more than 733,000 and it is noted that 150,000 are engaged in industrial pursuits. The regular foreign commerce of the city is to and from all ports of the world and there are also domestic steamship lines to ports on the Atlantic and the Pacific coasts, as well as to the gulf of Mexico ports. Internal communications are maintained by three trunk line railroads. The book is a credit not only to the Association but to the city.

#### Prominent in Hydraulic Turbine Work.

John H. Felthousen, chief engineer of the S. Morgan Smith Company, York, Pa., who died at his home there on March 5 after a brief illness, was for many years associated with that company, being identified with its activities in the marked advancement of recent years in the development of modern water power equipment. His loss is keenly felt by a host of friends and associates in the hydraulic turbine industry in which he was one of the foremost figures. Mr. Felthousen was about 65 years of age.

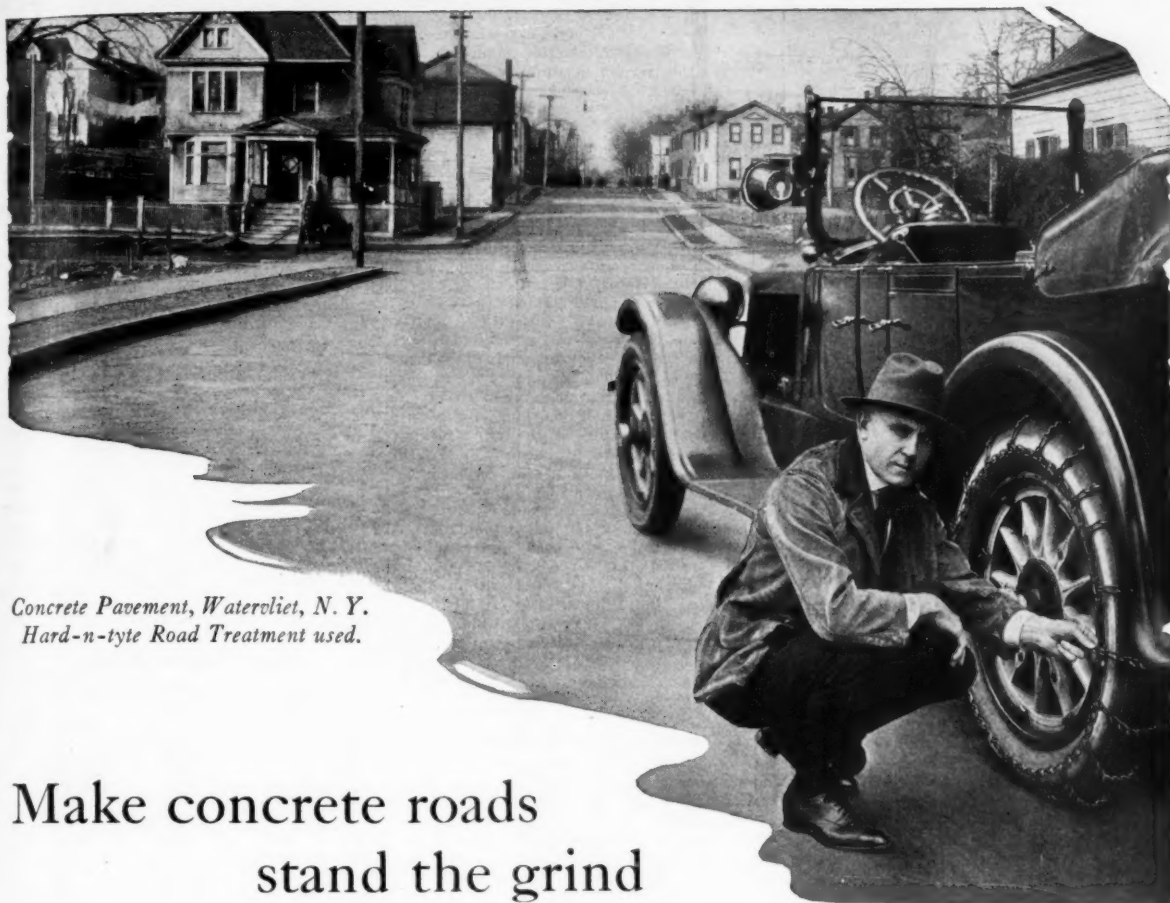
#### Large Sale of Government Property.

A large sale of Government property is announced to take place at the Mays Landing General Ordnance Reserve Depot, Mays Landing, N. J., on April 11, 12 and 13, the sale beginning at 11 o'clock daily on the premises. The property, which is to be sold at absolute auction, includes 5000 acres of land, dwellings, stores, apartments, administration building, steel and galvanized iron manufacturing building, railroad rails, pipe, plumbers' supplies, building supplies, machinery and equipment. Full particulars will be found in the formal announcement that appears in another column. The auctioneers are Samuel T. Freeman & Company, 1519-21 Chestnut St., Philadelphia, Pa., who will furnish illustrated catalogs.

#### Big Sale of Iron Works Equipment.

An important sale of machinery and equipment in a large iron industry is announced in another column. The Camden Iron Works is to be sold at auction on the premises in Camden, N. J., on April 6 and 7, the sale beginning at 10 A.M. each day. The plant manufactures hydraulic machinery, gas producers and cast iron pipe, and the sale will include the entire machinery and equipment, comprising machine shop, boiler and tank shop, forge shop, foundry, pipe shop, hydraulic, pneumatic, power and yard equipment, besides cranes, motors, etc., and the office equipment of the concern. Full particulars appear in the announcement. Samuel T. Freeman & Company, 1519-1521 Chestnut St., Philadelphia, Pa., are the auctioneers who will conduct the sale.





Concrete Pavement, Watervliet, N. Y.  
Hard-n-tyte Road Treatment used.

## Make concrete roads stand the grind

—even under *this* kind of traffic!



For over twenty years the General Chemical Company has been at the forefront of chemical research and manufacture in this country. Hard-n-tyte is the latest contribution of its splendid staff of chemists. It is the successful result of long search for a concrete hardener that really hardens the surface and materially increases its life. It enables engineers and contractors to deliver a quality of concrete work far in advance of anything that has been possible heretofore.

It isn't a question of this year or next. It's a matter of how the job will look five or ten years from now. Take this road we're on right now. Go over it in a couple of years. Go over it again in five years. Check up what I say about the Hard-n-tyte Road Treatment. See for yourself what it does to make a concrete road stand up and give service.

And after all is said and done, the grind of every day traffic isn't a starter to the tests the General Chemical Company engineers gave the Hard-n-tyte Road Treatment before they ever recommended it to highway engineers.

Hard-n-tyte comes to the job in

crystal form. These crystals are dissolved in water as needed and the solution flushed over the surface of the concrete—common labor does it quickly and cheaply. The fluorides and silicates formed are absolutely insoluble in water, unaffected by weather and extremely durable under the grind of traffic. Hard-n-tyte forms a flint hard surface that will wear for years like mosaic.

We shall be glad to help you increase the life of either old or new concrete. Drop us a post card asking for the details.

General Chemical Company  
1702 Broad Exchange Building, New York

# Hard-n-tyte Road Treatment

—makes concrete roads wear longer

**Resigned as Sales Manager.**

E. G. Rippel has resigned as sales manager of the Buffalo Foundry & Machine Co., Buffalo, N. Y., according to a recent announcement. Mr. Rippel is retiring after 21 years devoted to this organization, which developed from the Buffalo Foundry Company organized by him. After a much needed rest it is probable Mr. Rippel may again become active in business. C. W. Pearson, who has been assistant treasurer of the Buffalo Foundry & Machine Co., has succeeded Mr. Rippel as sales manager.

**Engineering Office Opened.**

Paul L. Battey, consulting engineer, has opened an office at 123 West Madison St., Chicago, Ill., for the design, supervision and construction of complete industrial plants, including railroad shops and terminals, manufacturing plants, mills, foundries and power plants. Mr. Battey also makes engineering reports, analyses, investigations and appraisals. He has had a broad experience of more than 20 years and was formerly vice president of the Arnold Company, Chicago.

**Change of Name.**

Ophuls, Hill & McCreery, Inc., engineers, 112-114 West 42nd St., New York, have applied for a change in charter to Ophuls, Hill, Inc., successors to Ophuls, Hill & McCreery, Inc., as they have purchased the interest of J. Harold McCreery. The firm will continue with the same personnel and at the same location. It is contemplated to enlarge its scope and broaden its field of activity. Fred Ophuls is president and Halbert P. Hill is vice president and treasurer.

**Road Machinery for Brazil.**

Hundreds of tons of Austin machinery will soon begin to move through New Orleans to Brazil, where it will be used for driving a tunnel and also for building a municipal market for the city of Sao Paulo. Robert Morris, head of the Austin Machinery Corporation of Louisiana, has been in Brazil for several weeks on this deal which he recently closed at \$4,000,000. There are other municipal improvements to be made which will cost several more millions of dollars so Mr. Morris is remaining, because of the opportunity to close other contracts. The company may establish a branch at either Rio de Janeiro or at Sao Paulo. Mr. Morris's trip to Brazil and its results followed a visit to New Orleans some months ago of Admiral Cordeira da Graca on steamship business. Being enthusiastic as to good roads, the Admiral was introduced by bus-

ness friends to Mr. Morris, who showed him how roads were built with Austin machinery. On his return to Brazil a State plan of public improvements took definite shape and he wrote Mr. Morris of the opportunity so that the latter secured the first contracts awarded. The company, already active in Mexico, now proposes to cultivate the entire Latin-American field.

**New Head of Motor Truck Company.**

Col. Frank E. Smith, who was recently elected president and general manager of the Republic Motor Truck Company, Inc., and also of the Republic Truck Sales Corporation, became connected with the Republic organization in November 1920 as vice president and general manager, and since then under his successful work the company has come satisfactorily through the period of industrial deflation and continues to occupy its important position in the truck manufacturing world. As president, Col. Smith succeeded John N. Willys, who resigned, as did Walter P. Chrysler and James E. Kepperley, who were on the board with Mr. Willys, this marking the passing of control from eastern interests headed by Mr. Willys—who desired to concentrate upon his other motor activities—to western interests in Michigan and Illinois. O. W. Hayes, H. D. Minich and Charles G. Rhodes were elected to fill the three directors' places, the first two becoming vice presidents and the latter secretary of the company. H. I. Shepherd resigned as treasurer.

**Director of Industrial Relations.**

G. H. Pfeif has been appointed director of industrial relations at the Schenectady plant of the General Electric Company, succeeding E. B. Merriam, who recently became executive engineer of the switchboard department. Mr. Pfeif, who has been with the company since 1905, has for the last several years been in charge of selecting and placing technical graduates in the student engineering courses. He will now have supervision over the employment, education and training, compensation, hospital and safety work at this plant.

**Will Remain at Johnstown.**

Interests controlling the Erie Electrical Equipment Company, Inc., Johnstown, Pa., have after careful consideration, declined an offer from a prosperous concern in another city of that state to purchase and remove the industry, which, will now continue at Johnstown its business of threadless pipe fittings for switchboards, powerhouse, railway and signal construction, etc., with offices also in twelve other cities. The board of directors includes J. L. Hershberger, president;

M. D. Bearer, vice-president; J. F. Kress, treasurer; H. A. Selah, sales manager and consulting engineer; and J. J. Mulvehill, Charles C. Kress is secretary. The board is considering plans for further development of the business.

**Large New Building Completed.**

The new 17-story building and headquarters of the Standard Oil Company of New Jersey, Baltimore Division, at St. Paul Place and Franklin St., Baltimore, Md., recently completed, was opened for inspection to a large number of invited guests on Saturday, March 25 from noon until 6 P. M.

**District Sales Manager Appointed.**

W. W. Sanderson, general sales manager of the Carborundum Company, Niagara Falls, N. Y., has announced the appointment of Harry Fowler as district sales manager of the Cincinnati territory to succeed Charles R. Cox, the appointment becoming effective July 1. Mr. Fowler will take charge of the Cincinnati branch and will direct the sales force throughout the Cincinnati district. Mr. Cox will be transferred to the main office at Niagara Falls to take up his new duties on sales statistics.

Bids close April 12, 1922.

**Street Improvements.**

Johnson City, Tenn.  
Sealed proposals will be received by the City of Johnson City, Tenn., at the Municipal Building, until 2 p. m., Wednesday, April 12, 1922, at which time they will be publicly opened and read, for grading and paving certain streets with concrete, asphalt, asphaltic concrete, or Telford base and Kentucky rock asphalt top.

The work will embrace approximately 43,650 sq. yds. of pavement, 34,300 lin. feet of curb and gutter, 6200 feet of 6 inch sewer, 1715 feet of 8 inch sewer, 900 feet of 12 inch sewer, 600 feet of 18 inch sewer, 1500 feet of 24 inch sewer, 26 manholes, 20 catch-basins, and 3 small concrete bridges.

Plans and specifications will be on file and can be seen at the office of the City Engineer, Johnson City, Tenn. Each bid must be accompanied by a certified check for ten per cent (10%) of the amount of the bid, conditioned that the contractor, in case the work be awarded him, will enter into a contract with the City of Johnson City within the time required and for the price named in the bid and in accordance with the plans and specifications and the provisions of the ordinances providing for the improvements to do the work or improvements.

The right is reserved to reject any or all bids or to accept any bid as the interest of the City of Johnson City may require.

T. H. McNEIL,  
City Recorder.

The above work has been previously advertised and bids were opened on March 17, 1922, but all bids submitted were rejected.

**The Oscar T. Smith Company**

Manufacturing Bank Stationers  
407-9-11 E. SARATOGA STREET  
BALTIMORE, MD.

OSCAR T. SMITH  
President

**CASTINGS**

BRASS, COPPER, BRONZE AND ALUMINUM  
BRASS TRAP SCREWS SERVICE BOX SCREWS  
GENERAL JOBBING WORK 1 OZ. TO 1500 LBS  
BRONZE TABLETS AND NAMEPLATES  
**LEE BROTHERS FOUNDRY CO.**  
ANNISTON ALABAMA

What percentage of the lumber output  
of the country is cut in the South?

This and a thousand and one other  
questions are answered in the

**Blue Book of Southern Progress**  
Single Copies 50 cents  
Manufacturers Record, Baltimore, Md.